

ADAPTATION OF THE LOCAL TOURISM SECTOR TO CLIMATE CHANGE

Strategic possibilities for Steamboat Springs



*Peering into the future before
it becomes present*

Prepared for:

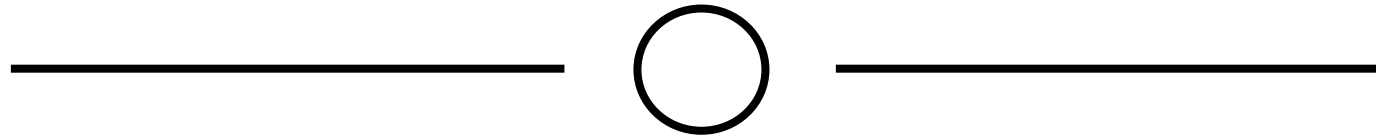
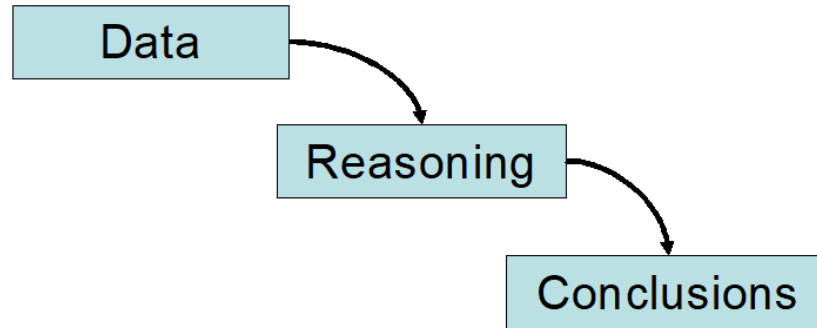
Steamboat Springs Chamber of
Commerce

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Every year, the *World Economic Forum* asks leaders in government, business, and academia to identify the most consequential risks facing the world over the next decade. This year, for the first time in its 14-year history, the *Global Risks Report* revealed a striking consensus: **the top five biggest risks were all climate related**, from extreme weather events to collapsing ecosystems.

The following report considers this critical issue facing Routt County and Steamboat Springs and creates strategies and processes to facilitate the tourism industry adapting to climate change over the next 30 years.

Background

The Steamboat Springs area has a diverse, year-round economy with a variety of strong industry sectors including tourism, mining, location-neutral businesses and employees, outdoor recreation product companies, creative industries, construction and regional health care.

The regional economy was originally largely based upon agriculture and mining. However, tourism, due mostly to skiing, quickly became the staple industry and key economic driver. Colorado's oldest ski area in continuous use, Howelsen Hill, opened in 1915 and in 1964 the Steamboat Ski Area opened. Dubbed Ski Town, USA®, Steamboat Springs became a training ground for Olympians as well as a world class resort destination for skiers in the wintertime. Over the last decade there has been an increase in non-ski season visitation as activities such as hiking, biking, fishing and others are growing in popularity. Accordingly, the impacts of climate variability impact visitation year-round from river temperatures to wildfire risks.

Given the importance of the tourism sector to the economy in and around Steamboat Springs, the City seeks to gain an overview of, and unique insights into, the range of adaptation strategies, best practices and specific action steps, commonly utilized by other resort communities facing climate variability, that can be implemented locally. Additionally, the city wants to understand the current state of knowledge and awareness in the community about climate variability and adaptation currently occurring in the local tourism sector and identify actionable pathways with specific action steps for future engagement with local businesses to better prepare the tourism sector and local economy for climate variability and future changes.

* Content of this page from the Adaptation of the Local Tourism Sector to Climate Variability RFP



Tread of Pioneers Museum

Deliverables & Scope of Work

The deliverables and the scope of work outlined below are taken from the original RFP and the Statement of Work. As with most projects, this project required creativity and an amending of the overall scope, outcome, and process. This largely came from the lack of comparable tourist destinations as forward thinking as Steamboat Springs, meaning deriving 'best practices' from these communities was not possible. As such, this report has evolved more into a strategic plan document outlining and supporting Steamboat Springs' movement in the direction of destination management as a vehicle for sustainable tourism and adaptation of the tourism sector.

1. The impact of climate change and variability on Steamboat Springs and its year-round tourism sector
2. The range of local tourism sector adaptation strategies, best practices and actions steps implemented by other resort communities facing climate variability impacting tourism sector
 - Research of best practices (government, private, nonprofit, etc.) of similar adaptation efforts in similar communities
 - Industry consultation (in-person or telephone meetings)
 - Community partner organization consultation (in-person or telephone meetings)
3. The current state of knowledge and awareness about climate impacts and adaptation strategies in the Steamboat Spring's tourism sector
 - Catalog current adaptation efforts underway in Steamboat Springs
4. Actionable strategies and specific action steps;
 - Identify gaps in adaptation efforts in Steamboat Springs
5. Resiliency strategies for future engagement with local businesses in the tourism sector to better prepare our local economy for climate variability and the resulting impacts.
 - Research and recommend specific, viable strategies, action plans and next steps for successful engagement with local businesses

Definitions

It is always wise to define how some key terms will be used in the beginning.

- **Visitor/tourist:** These terms will be used interchangeable
 - Tourist/tourism tending to be used when referring to the industry
 - Visitor/visitors for those who visit Steamboat Springs and Routt County
- **Climate change/variability/impacts:**
 - Climate change will be used to refer to long-term (decades and centuries) changes in climate.
 - Climate variability will refer to increasing variance in weather patterns within and across seasons. These are longer-term than a singular “extreme event”.
 - Climate impacts refer to the impacts resulting from both climate change and climate variability.
- **Climate mitigation/adaptation/action:**
 - Climate mitigation involve efforts to reduce a community’s contribution to climate change. These tend to involve moving to net zero carbon emissions, renewable energy use, and other such efforts.
 - Climate adaptation refers to a community’s, businesses’, or individuals’ efforts to a make “(A)djustments and modifications... undertaken in expectation of and in response to environmental changes. “

* WIREs: Climate Change. Sep2013, Vol. 4 Issue 5, p397-416. 20p.

Routt County Climate Impacts & Forecasts

Climate Summary

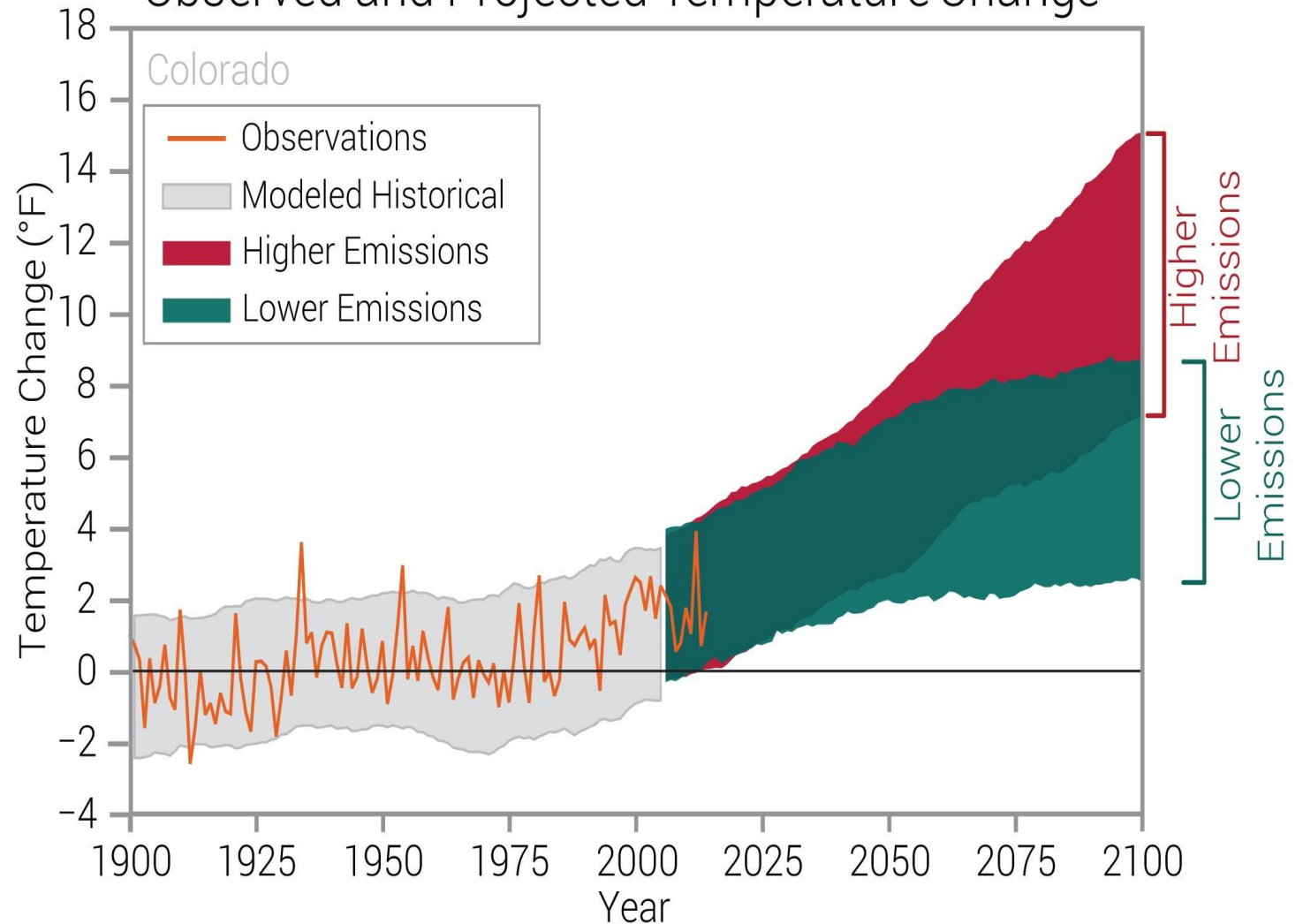
Threats

- Slight **precipitation increases in winter, but more as rain**. No change in summer.
- Mid-season snowpack unchanged until 2050 but **decreasing April-1 snowpack**.
- Earlier and greater peak streamflow, **lower avg and min flow, higher water temperatures**.
- Increase in frequency and intensity of **wildfire and wildfire impacts**.

Opportunities

- Longer **summer and shoulder seasons**.
- Attracting Front Range and other residents to **cooler climate**.
- Attracting visitors who from areas where winter recreation is no longer viable or the quality has been diminished.
- Milder winters make Routt County more attractive for year-round residence.

Observed and Projected Temperature Change



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Temperature

Temperatures in Colorado have increased by **2.5 F since 1970** and are projected to increase approximately **2.5 F more (up to 4 F) by mid-century**, with summer temperatures increasing faster than winter temperatures.

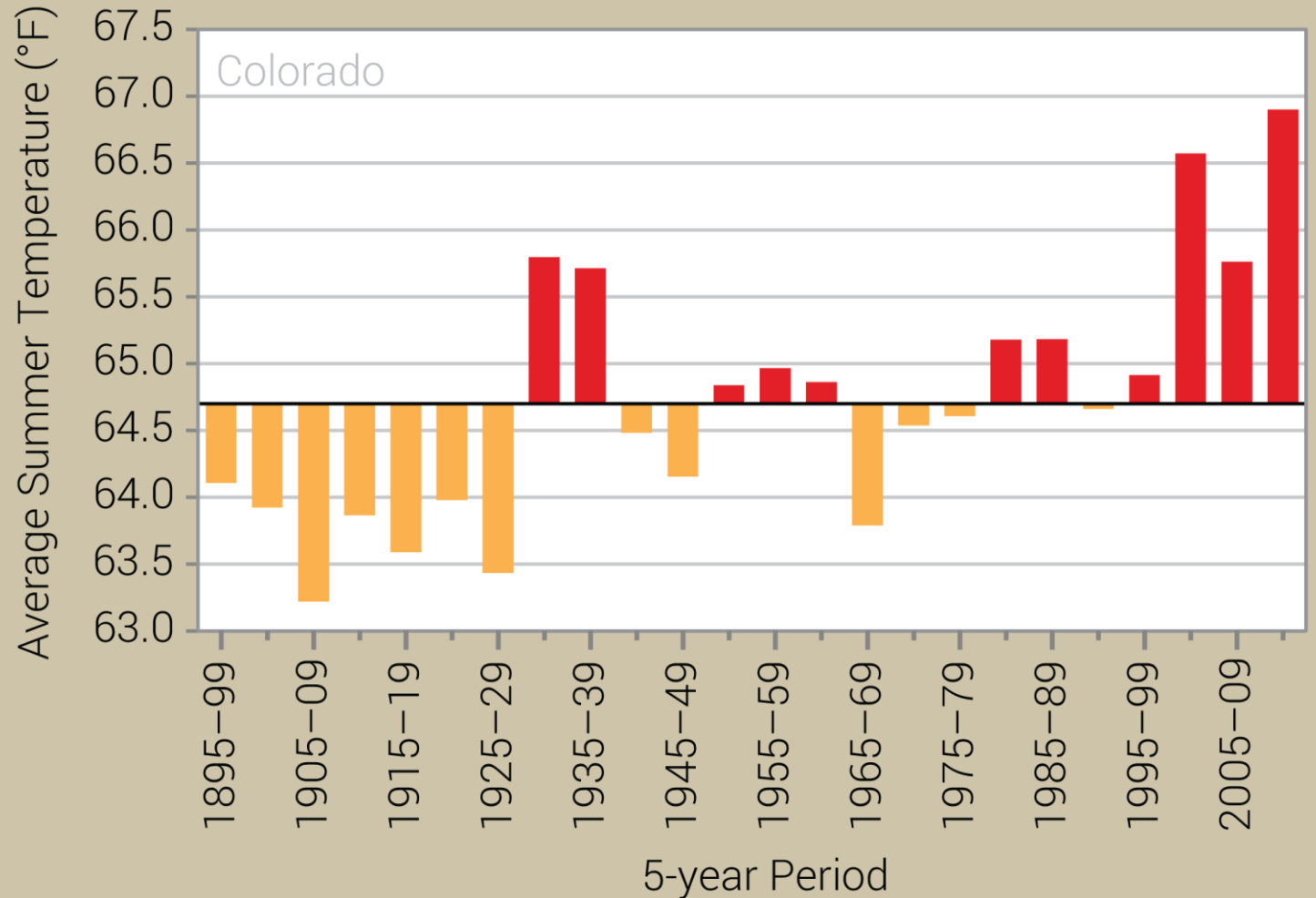
This will have numerous impacts throughout Colorado and Routt County.

Yampa River flows will drop while water temperatures will rise. It is uncertain how reservoir levels will be affected but they will warm, possibly leading to algae blooms. These factors will affect cold water fish species, which attract anglers. The reduced stream flow may also impact water sports and irrigation.

It will also increasingly dry out the earth, causing drought and increasing wildfire risk (see 'drought' and 'wildfire' pages)

However, higher temperatures may also drive people in areas of lower altitude and higher temperatures to seek the cooler temperatures, shaded tree cover, and water recreation found in Routt County.

Observed Summer Temperature



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Annual Precipitation

No long-term trends in annual precipitation have been identified in Colorado, despite the relatively dry period since 2000.

However, warmer air can hold more moisture, and **statewide precipitation models predict a range from -5% to +8% changes by 2050.**

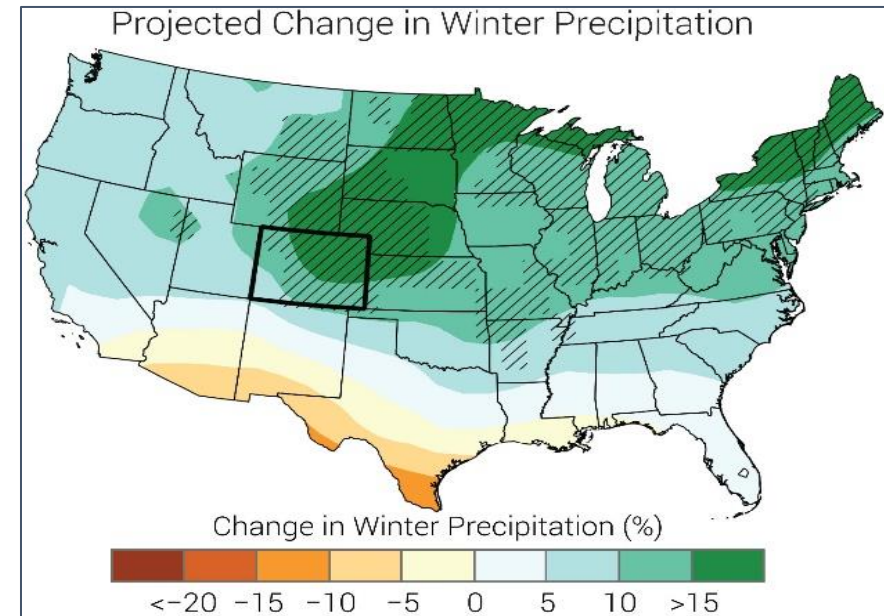
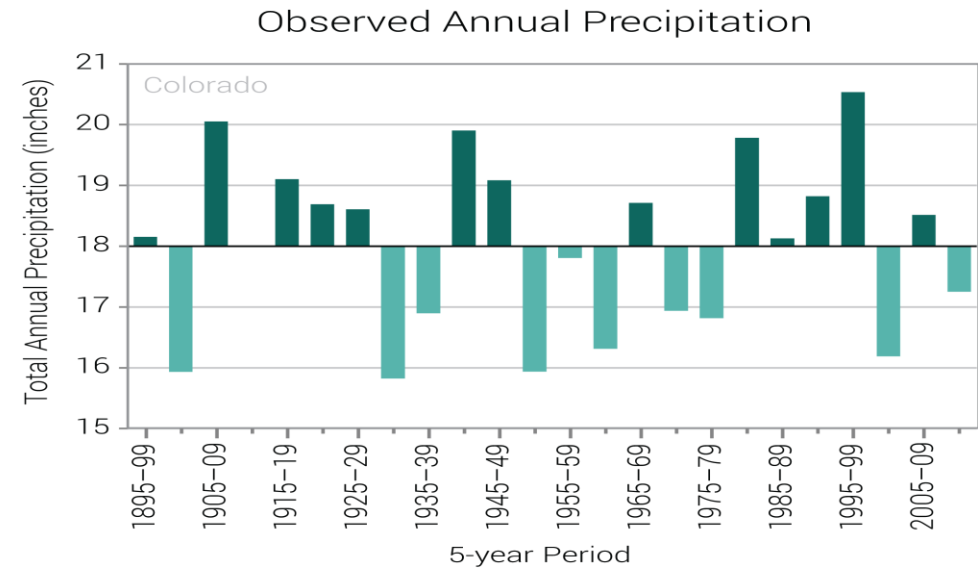
Winter precipitation see increases in models with less precipitation falling during the growing season.

The models show the **Routt County area as being likely to experience the highest winter precipitation increases**, while the risk of reduced precipitation to be greater for southern Colorado.

The increase in the amount of winter precipitation falling as rain, **earlier runoff, higher temperatures, and longer shoulder seasons will continue the growth in wildfire frequency and severity.**

Additionally, **no long-term trends in heavy or extreme precipitation events** are detectable in statewide composites of multiple station records.

The frequency and magnitude of **extreme precipitation events are projected to increase**, and detailed studies suggest that **winter extreme precipitation events will increase but there is no forecasted increase in summer events.**



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Drought & Wildfires

The Palmer Drought Severity Index (PDSI) **shows a trend towards more severe soil-moisture drought conditions over the past 30 years** (yellow shows drier conditions and green wetter).

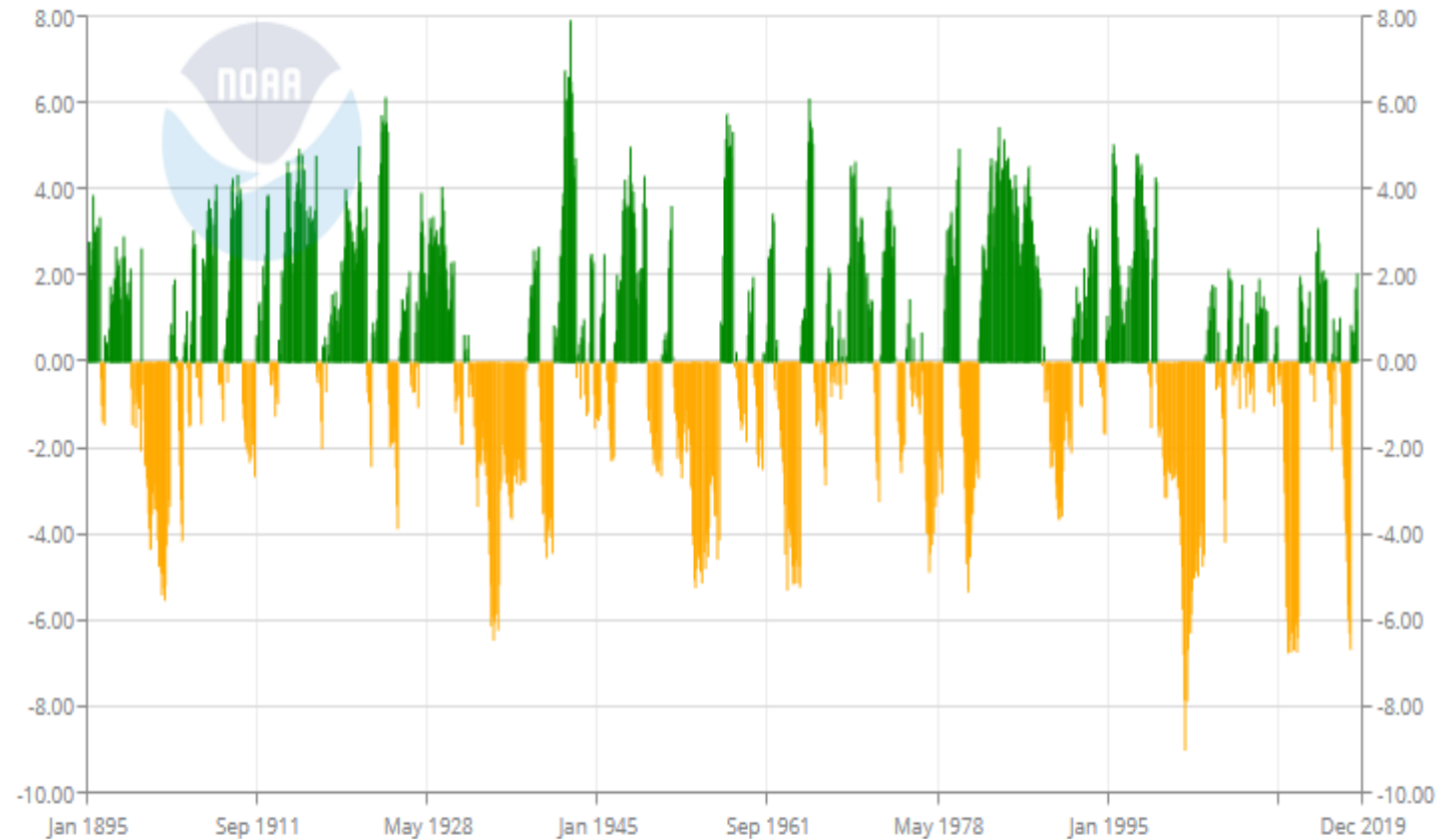
With earlier snowmelt and no change in summer precipitation, drought conditions are expected to worsen, with **greater evapotranspiration due to higher temperatures, lower humidity, and less cloudiness, drying out soil.**

Since the 1980s, the **wildfire season has lengthened** across a quarter of the world's vegetated surface.

Studies consistently indicate that by the mid-century, **the fire season will be longer, the annual area burned will be much greater, and the risk of very large wildfires will be much higher.**

Wildfires **destroy homes, affect air quality, close trails, disrupt travel, and are known to significantly decrease visitation.** Prolonged impacts affect **water quality, create flood potential and danger in burn scars, and often close public areas for years, reducing trail access.**

Colorado Palmer Drought Severity Index (PDSI)



Snowpack and Snowmelt

April 1st snowpack has been below average since 2000 in all of Colorado's river basins. **Snowmelt and peak runoff have shifted 1-4 weeks earlier** in the season over the past 30 years.

Projections of **Colorado's spring snowpack** show continued declines, with changes ranging from **-5% to -20% by 2050**. Declines result from **higher cool-season temperatures, precipitation falling as rain instead of snow, and greater sublimation and snowmelt** during the winter and early spring

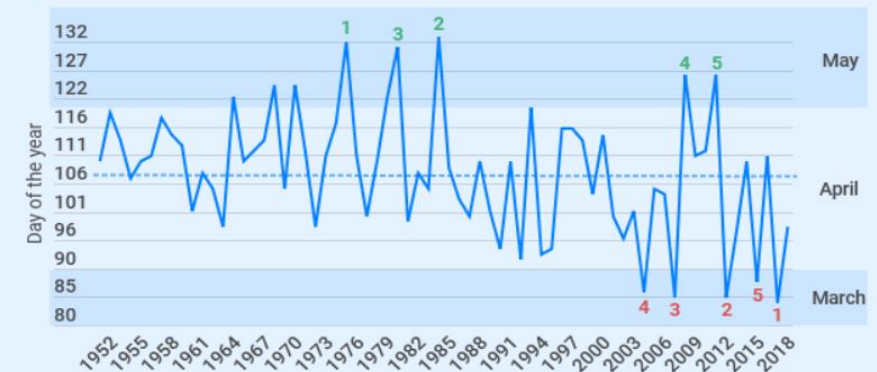
March snowpack will show similar decreases, but forecasts show **only small changes in March snow-covered area at the ski area until 2050**, due to higher altitude and slope placement.

Monthly snow water equivalent in the Yampa River basin is projected to decrease in all months. Decreases in January and February are not large until after 2030. Additionally, in Routt County, average monthly snow-covered area is projected to decrease but with minimal changes for January and February during 21st century.

Springtime snowmelt

As observed at Fetcher Ranch in North Routt

Hay meadow snowmelt date, 1951-2018



Earliest snowmelt

March 25

Recorded in 2012 and 2017

1. March 25, 2017
2. March 25, 2012
3. March 26, 2007
4. March 26, 2004
5. March 29, 2015

Latest snowmelt

May 12

Recorded in 1975 and 1984

1. May 12, 1975
2. May 12, 1984
3. May 10, 1980
4. May 5, 2008
5. May 6, 2011

Source: Jay Fetcher

Graphic by Nicole Miller

Made with Infogram

Climate Risk to Steamboat Springs Tourism Businesses

Current

- Increased risk of wildfire and wildfire impacts
- Earlier snowmelt and shorter winter season
- Warmer temperatures (mostly in summer)
- Lower Yampa River flows and higher water temperatures

Next 10 Years

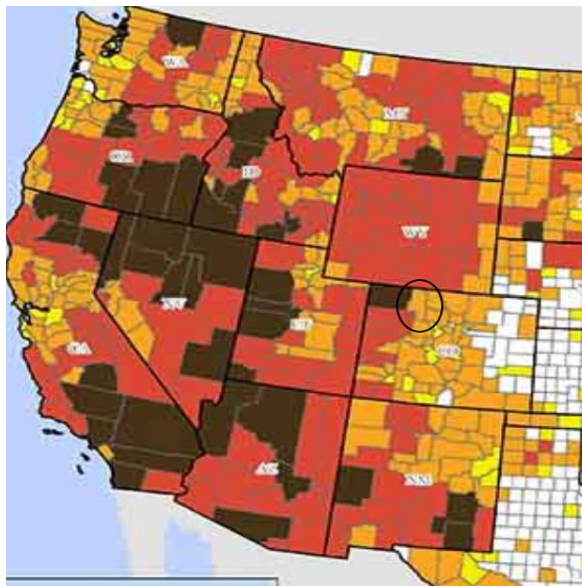
- Less snow in shoulder months, mixed with rain, and earlier snowmelt-
- Continual increase in risk and severity of drought and wildfire impacts
- Continued increase in variability within and across seasons

Uncertainty:

Impacts on snow quality from snow levels from winter rain? Will impacts alter tourism?
Effects of even greater climate challenges faced elsewhere in the country?
How will reservoirs respond? Warming? Low-levels?
Extreme weather events? Will they increase and what will be the impact?
Unknowns surrounding wildfires.

Climate: The Greatest Threat

A large wildfire in the vicinity of Steamboat Springs could devastate the tourism industry's season. Wildfires destroy homes, affect air quality, close trails, disrupt travel, and are known to significantly decrease visitation. Prolonged impacts, from greater flood potential, decreased water quality, wildlife impacts, erosion, and danger in burn scars, often close public areas for years, reducing trail access and forcing more people into reduced areas.



Wildfire activity by county 1994-2013 (FEMA)

The ***degree of wildfire risk*** depends on both the ***probability of an ignition*** (from lightning or human activity) ***and the potential for damage or harm*** (such as loss of homes, lives, revenues, and trails).

Increases in tourism increase the probability of ignition from human activity. Ongoing changes in climate amplify the potential for damage and harm, as a result of drier vegetation and hotter weather.

MITIGATION IN THE RECREATION TO NATURAL & URBAN INTERFACE IS A REQUIREMENT OF ALL ADAPTATION STRATEGIES

Climate: The Greatest Opportunity

Steamboat Springs' location in north-central Colorado, altitude, and abundance of water recreation resources present the greatest opportunities resulting from climate change.

Routt County's ***altitude acts as a buffer against the warming affects of climate change***. Additionally, it is expected to do better than any other area in Colorado regarding winter precipitation and snowpack. This gives Steamboat Springs ***a competitive advantage over many other winter recreation areas in the country***. As winter recreation opportunities around the country become less viable, ***Steamboat Springs has an opportunity to increase its market share over the next 20-30 years***.



Routt County's ***cooler temperatures and water recreation provide a respite for visitors*** from increasingly hot areas such as the Front Range, Texas, and the Midwest. This is true even for shoulder seasons, which are no longer free from the unbearably hot temperatures that were typically only associated with summer.

Deeper Analysis: Demographic and Recreation Trends

Demographic and Recreation Trends

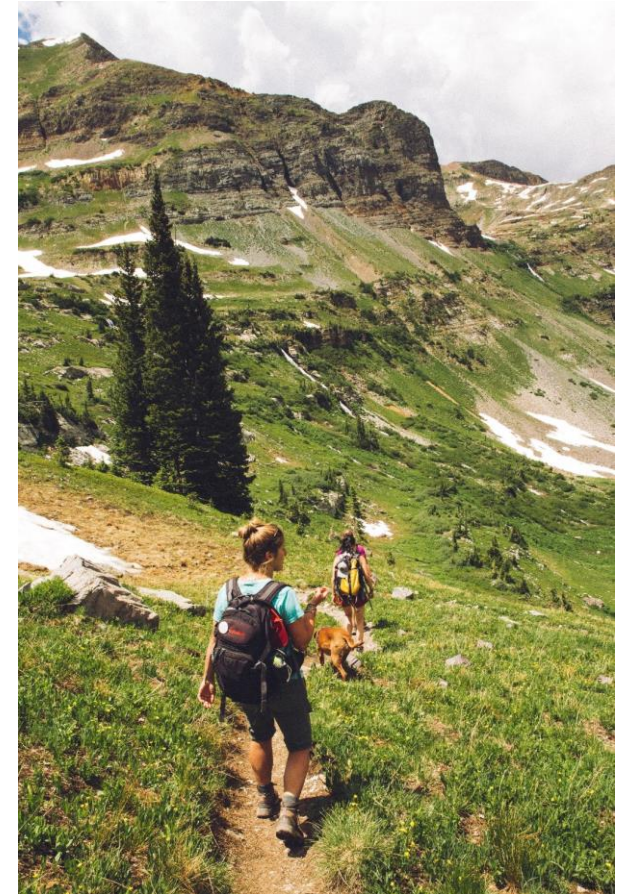
The following are forecasts, data, and analysis of existing and forecasted changes in local, state, and national demographics as well as trends in outdoor recreation behavior.

When considering this reports strategies and action steps, it is important to understand how trends may impact the Steamboat Springs and Routt County tourism industry in the future such that action steps are designed with these future realities considered.

Recreation & Demographic Trends - Summary

- In the US, 50% of the population engages in outdoor recreation (72% in Colorado) and **'recreation-days' have increased 25%** over the last decade. So, those recreating are doing so more frequently.
- Those **aged 25-44** have shown the greatest growth in engagement over the past decade and, overall, **the younger the individual, the more likely they are to participate in outdoor activities.**
- Among young adults; **Hiking, Trail Running, SUPing and Kayaking are growing.** Snow sports, Rafting, and Fishing (other than fly-fishing) are declining.
- **Trail-based activities have the largest growth over the past decade.**

* Outdoor Industry Association. (2019). *Outdoor Participation Report*

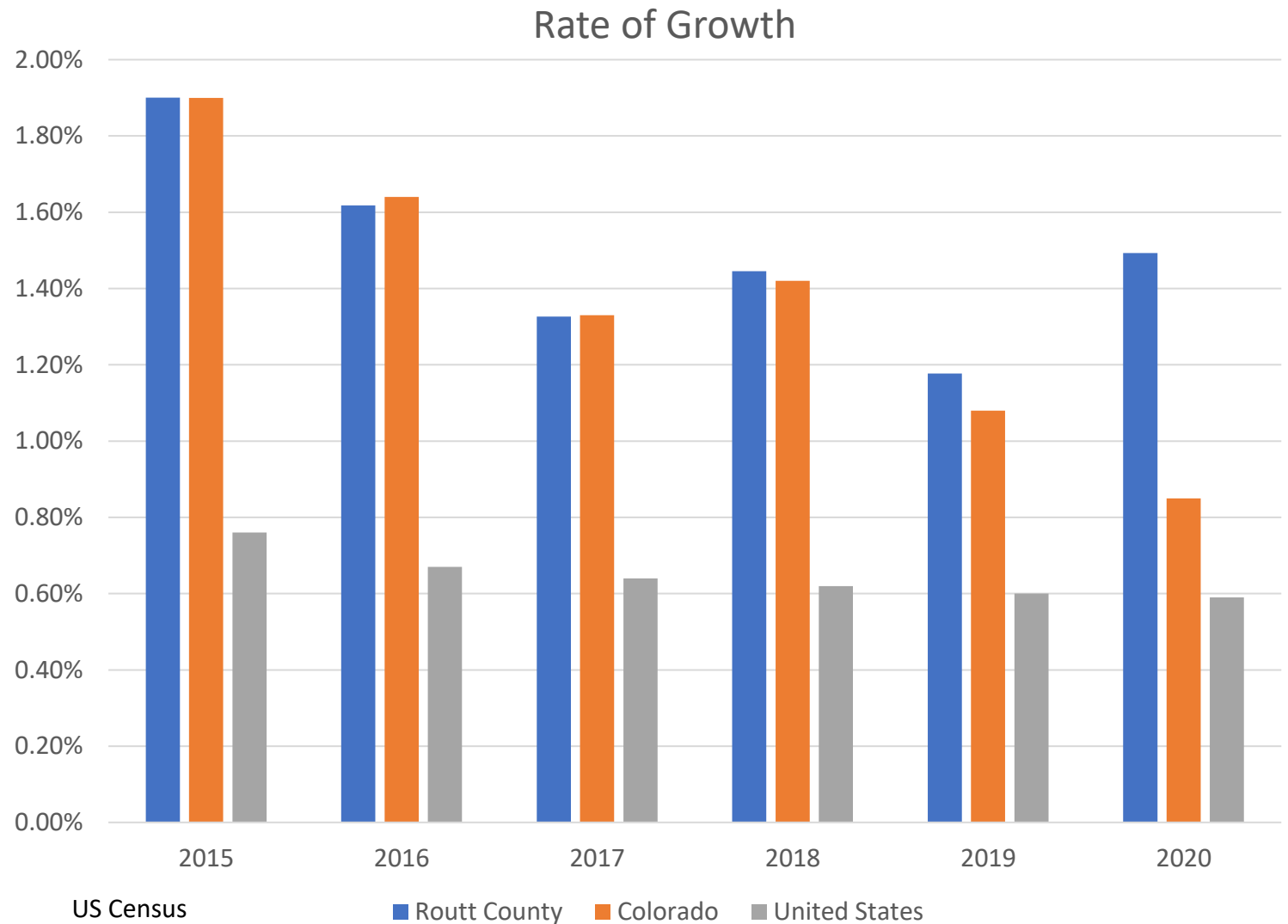


Population Growth

The chart to the right shows the growth rates of the US, Colorado, and **Routt County**. **Routt County has been growing rapidly since the 1970s, with 564% growth in the past 50 years.** This has significantly outpaced the population growth in the US, at 162% over the same period, and even Colorado, at 261%. In the past several years, the growth in Routt county has generally mirrored that of Colorado.

The continued growth of population within the US as well as the greater growth of Colorado, will likely lead to **increased visitor demands for Routt County in the future.**

As more baby boomers retire and can live wherever they chose; as more people have the freedom to work remotely; and as access to outdoor recreation continues to grow as a priority for much of the population; **Routt County should also continue to see a high rate of growth.**



Outdoor Recreation Participation Rates

Outdoor recreation participation rates for Americans above the age of 6 have been stable over the past decade at right around 50%.

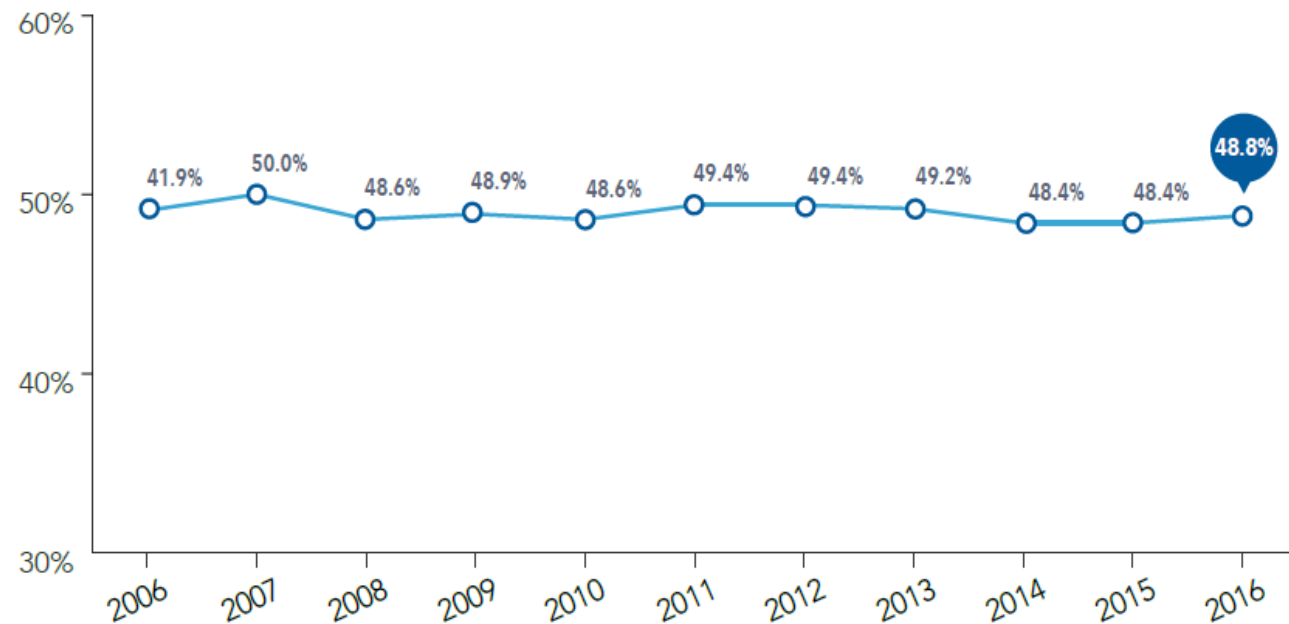
As might be expected, Colorado shows an even higher percent of the general population, with **71% of Coloradans engaging in outdoor activities.**

As shown in the previous slide, population is growing in the US and is growing even faster in Colorado, and faster still in Routt County.

With a growing population, even a stable percent of the population engaging in outdoor recreation will result in an increase overall recreation numbers.

outdoor participation trends

All Americans, ages 6+



* Outdoor Industry Association. (2019). *Outdoor Participation Report*

Outdoor Recreation Frequency

Despite the stable percent of the country engaging in outdoor recreation, those that recreate are doing so more frequently.

The graph to the right shows the difference in total days engaged in a given activity between 2012 and 2017

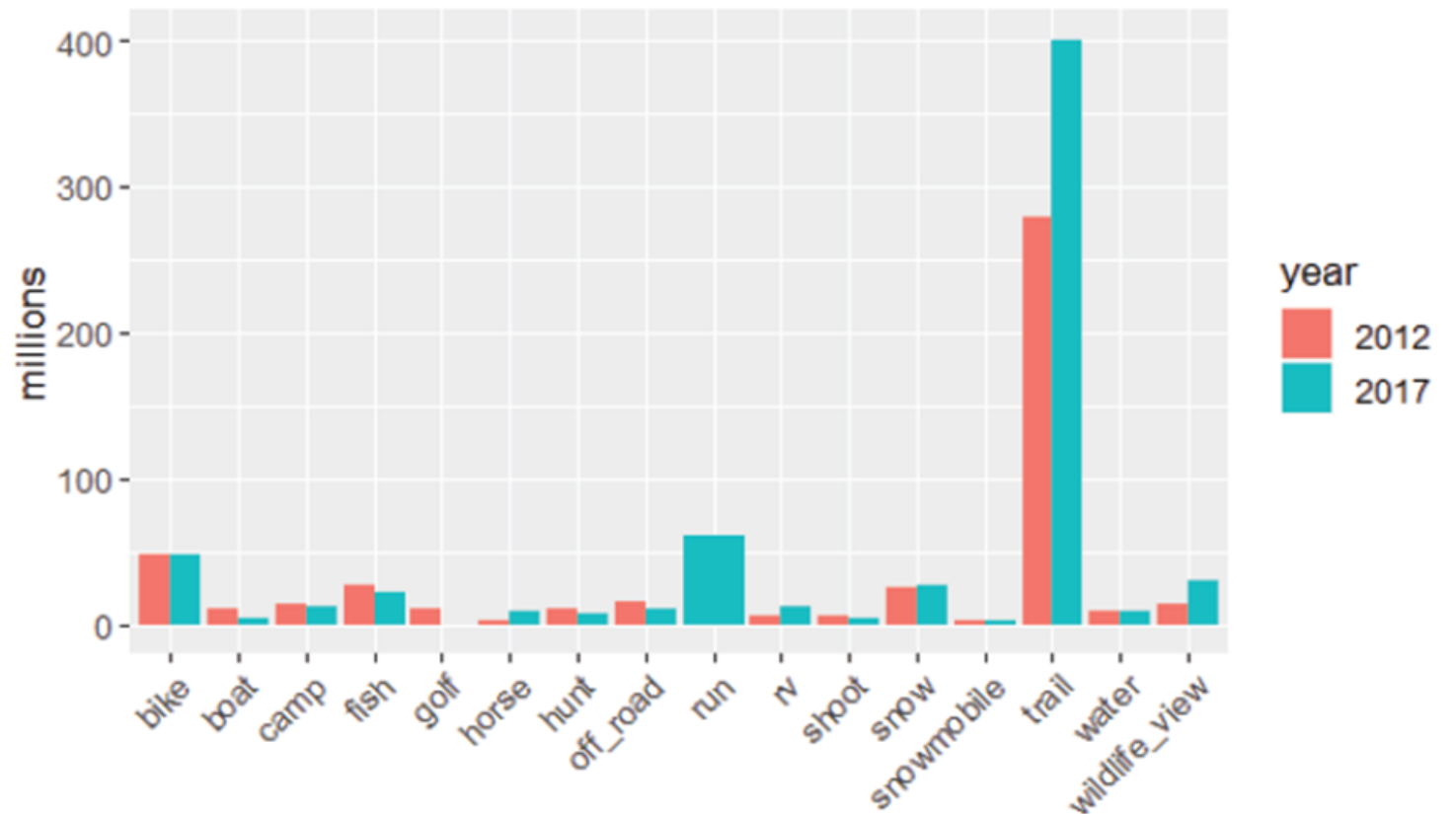
Some sports see a stable level of activity while others see growth. Overall, however, **total days engaged in outdoor recreation is up significantly, led primarily by trail-based activities** (largely hiking and trail running).

Given the trail network, natural beauty, and events (such as Run Rabbit Run) of the area, **Routt County seems well positioned to take advantage of this trend.**

Total Days

The number of days for trail sports dominate in both time periods, and it also increased by a substantial amount between 2012 and 2017.

Total Days per Activity Group: 2012 vs 2017



* Outdoor Industry Association. (2019). *Outdoor Participation Report*

National Outdoor Recreation Spending

Despite stagnant growth in some activity areas, virtually all see **healthy increases in spending**.

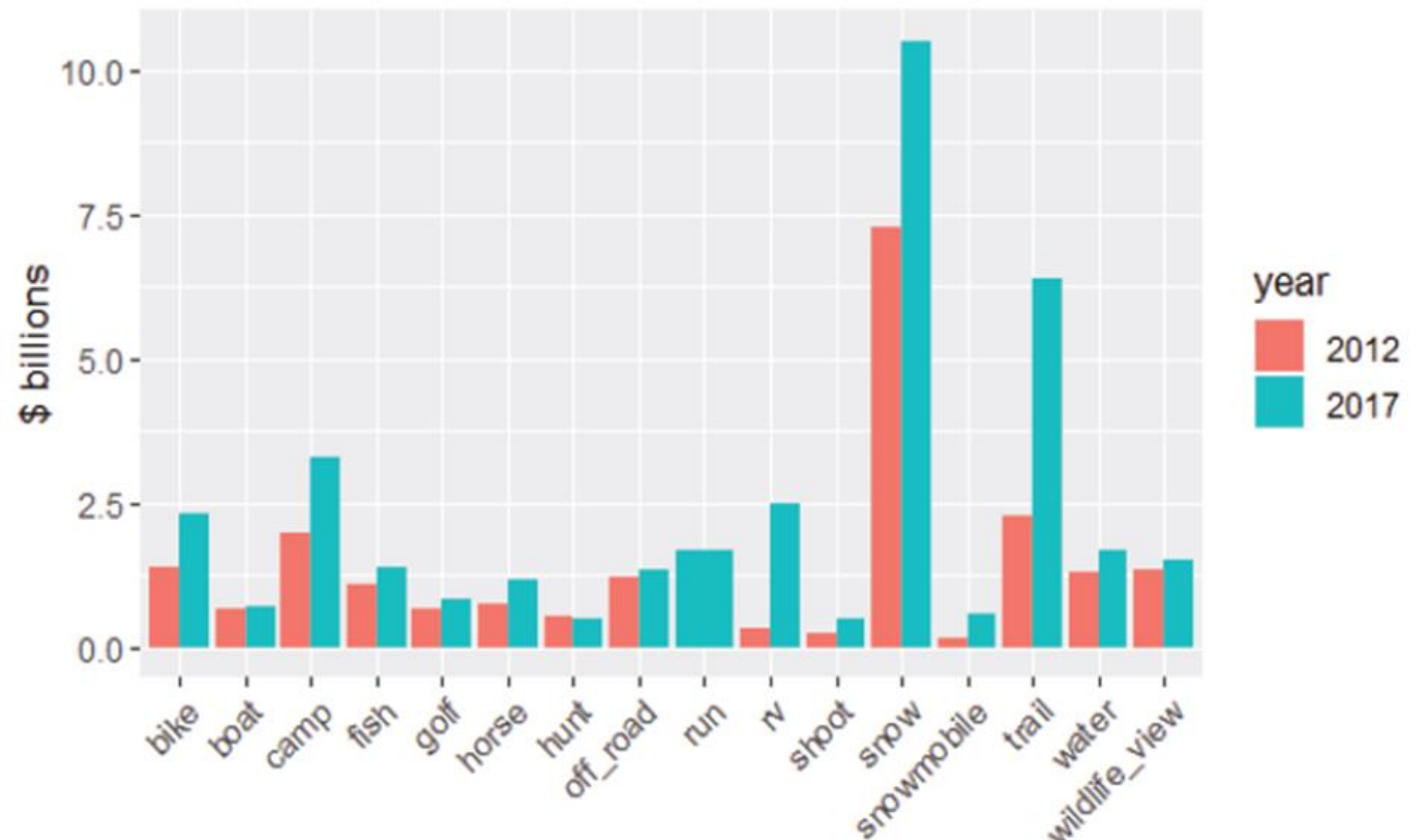
The increase is the **largest for trail-based activities, but snow/skiing continues to be the leader** in overall outdoor recreation spending and skiers are spending a higher amounts per trip.

Of particular note is **the significant growth in spending in the “RV” sector**. This is an area of growing activity and spending, has been forecasted to continue to grow into due to increasing millennial participation, and the experience of COVID-19 may have accelerated the adoption and growth as RVing and “Van life” reached new highs in 2020.

Total Spending

Spending generally increases across activities, but a handful constitute the lion’s share (snow sports, trail sports, running, rv’ing). Note that “running” is shown for only 2017. In 2012 running constituted a tiny part of the “trail” category of spending.

Total Spending per Activity Group: 2012 vs 2017



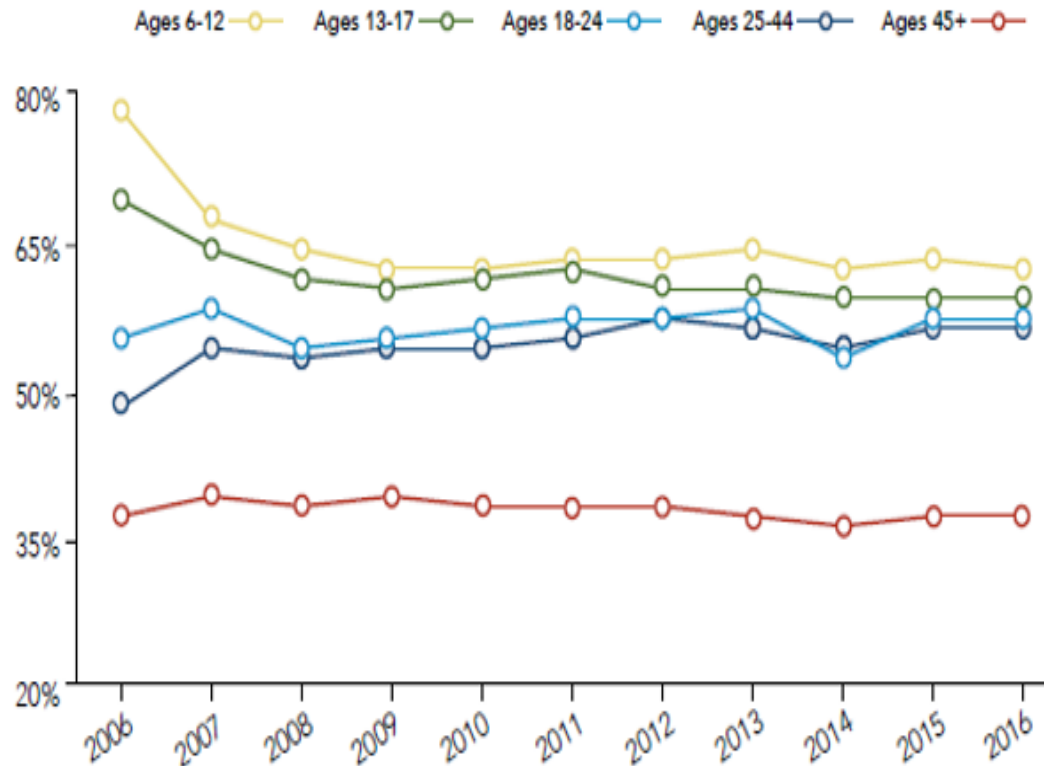
* Outdoor Industry Association. (2019). *Outdoor Participation Report*
Summit Economics, LLC

Demographic Trends

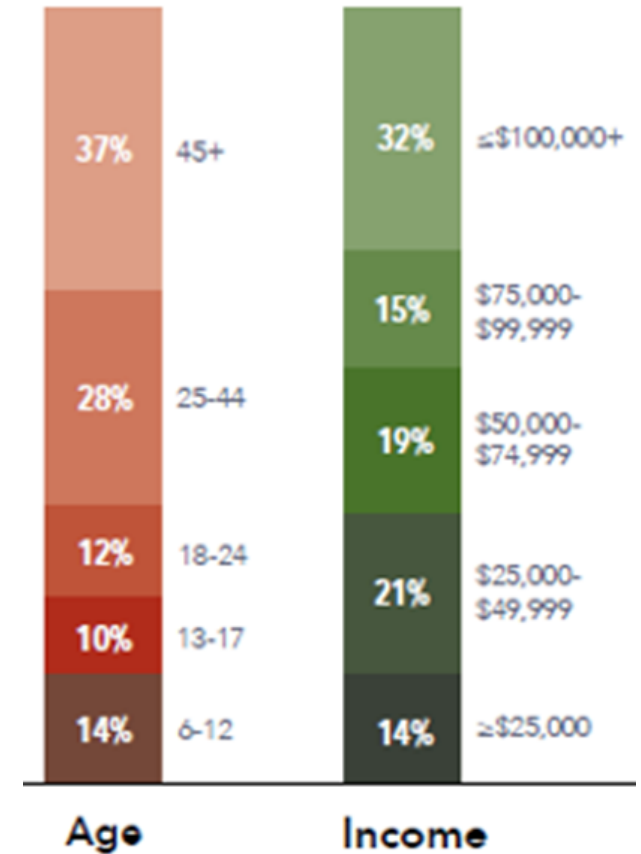
Those above the age of 45 make up the most significant percent of participants, as do those who earn over \$100,000. However, a large percent of these two groups are baby boomers, who will largely be phasing out of outdoor activity over the next 20 years.

Those aged **25-44** have shown the greatest growth over the past decade and, overall, the younger the individual, the more likely they are to participate in outdoor activities.

The millennial generation is increasingly replacing the boomers as the most significant generation to impact trends and tourism.



* Outdoor Industry Association. (2019). *Outdoor Participation Report*



Activity rate trends

All Ages: Significant growth in traveling by foot on trails (hiking, snowshoeing (boomers moving off slopes onto snowshoes?), and trail running). Contraction in skiing, rafting, and fishing (other than fly-fishing)

18-24: Provides insight as to where growth is likely to be in the future. Kayaking and trail running rates doubled. Hiking saw 50% growth. SUPing is a trend to watch. 30% reduction in snow sports. Contraction in rafting, and fishing (other than fly-fishing)

All Ages - Activity Participation Rates	2007	2016
Canoeing	3.5%	3.4%
Kayaking (Whitewater)	0.4%	0.9%
Rafting	1.6%	1.2%
Fishing (fly)	2.1%	2.2%
Fishing (Freshwater/Other)	15.8%	12.9%
Skiing (Alpine/Downhill)	3.7%	3.1%
Snowboarding	2.5%	2.6%
Snowshoeing	0.9%	2.9%
Standup Paddling	---	1.1%
Bicycling (Mountain/Non-Paved Surface)	2.5%	2.9%
Trail Running	1.5%	2.9%
Hiking	10.8%	14.2%

18-24: Activity Participation Rates	2007	2016
Canoeing	5.4%	5.2%
Kayaking (Whitewater)	0.8%	1.7%
Rafting	2.8%	1.8%
Fishing (Fly)	2.4%	2.3%
Fishing (Freshwater/Other)	14.3%	11.6%
Skiing (Alpine/Downhill)	6.4%	3.7%
Snowboarding	6.7%	4.1%
Snowshoeing	1.5%	1.0%
Standup Paddling	---	1.9%
Bicycling (Mountain/Non-Paved Surface)	3.6%	3.3%
Trail Running	2.8%	6.6%
Hiking	12.2%	18.3%

Demographic & Activity Trend SWOT

Strengths: Overall outdoor recreation growth. Comparative advantages of climate and altitude over non-CO winter destinations. Proximity to growing market.

Weaknesses: Lower elevation compared to other CO ski towns. Yampa flows not consistently supported by dam releases.

Opportunities: Longer summer/shoulder seasons. Cooler relative temperatures, water-based activities, growing population in CO. Growing number of people engaging in trail-based activities.

Threats: Mid-season snowpack diminishing after 2040. Streamflow changes affecting rafting and fishing. Wildfires likely to be biggest threat to tourism as damage can endure. Community resistance to exceeding recreation capacity and conservation interests.

Climate Adaptation Strategies: Comparable Communities Interviews

This section will cover the findings and conclusions from researching “The range of local tourism sector adaptation strategies, best practices and actions steps implemented by other resort communities facing climate variability impacting tourism sector”.

What is adaptation?

“(A)djustments and modifications... undertaken in expectation of and in response to environmental changes, which cover a wide range of attitudinal, cognitive and behavioral aspects at organizational and individual levels.”

* WIREs: Climate Change. Sep2013, Vol. 4 Issue 5, p397-416. 20p.

Community Interviews: The Questions

- Reached out to communities, researchers, associations, larger companies.
- Four broad action categories? Nothing, climate mitigation (to get to net 0), sustainable tourism (to maintain & preserve the asset), adaptation to variability.
- Perceived probability of occurrence (0 to 5, 5 to 15 years, 16+) and degree of impact if/when it occurs: Minor to devastating.
- Engagement with small business community as part of efforts: How challenging has that been? How have you attempted to engage them?
- How aware is your small business community of the probability, timing and degree of impacts from climate change.

Comparable Community Interviews

Individuals from more than 65 cities, organizations, and outdoor entities were contacted.

From that outreach, ultimately, twenty-one interviews were completed.

The table to the right provides a list of those gracious enough to grant their time, experience, and insights to the benefit of this effort.

* Additional secondary research and research efforts found in Appendix C

Community	Individual and Entity
Moab	Elaine Gizler, Moab Chamber & EDC Director
Univ of Wyoming	Jake Hochard Haub School, Univ of Wyoming
Vail	Mia Vlaar, Vail Economic Dev Director
Vail	Chris Romer, Vail Chamber of Commerce
Breckenridge	Jessie Burley, Breckenridge Sust Coordinator
New Mexico	Toner Mitchell, Trout Unlimited New Mexico
Vail	Markian Feduschack, Walking Mountain, Vail
New Mexico	George Brrooks, Ski NM
New Mexico	James Glover, NM Outdoor Recreation Business Alliance
Flagstaff	Nicole Antonopoulos, Flagstaff Sustainability Manager
Sedona	McKenzie Jones, Sedona Sustainability Coordinator
Sedona	Darcy Hitchcock, Co-Founder, The Sustainability Alliance
State of Colorado	Mindy Blazer
North Carolina	Jessica Barnett
Whistler	Cheeyng Ho
Whistler	Arthur DeJong, Whistler Blackcomb, Manager of Envir Svcs
National	Julie Klein, Chair of Leave No Trace
Moab	Brendon Cameron, Moab Chamber of Commerce, Exec Dir
Aspen	Austin Weiss, Park & Recreation Director
Colorado	Emily Haddaway, OEDIT Colorado
Colorado	Bill Dvorak, Colorado River outfitters

Broad Strategies in Other Communities

Adaptation, mitigation, and diversification

- ***Summer tourism will be seeking to “cool off”.*** Lower altitude communities looking to shift to more indoor activities. High altitudes communities looking to expand to shoulder seasons
- ***Wildfire mitigation is greatest concern*** in forested and trail areas
- Use of various tourism attractions to help diversify
- Increase ***visitor experience opportunities through built environment.***

Education and behavioral change directed to sustainability and environmental responsibility

- ***Education*** of both visitors and the general community increasingly important, not just for marketing, but also ***for effecting real change.***
- The presence of educational institutes, non-profits, research agencies, and centers not only enhances a locality’s reputation and improves its’ sustainability efforts, but also leads to new tourism or outdoor recreation employment.

Themes from Mountain and High Desert Communities

- Most other mountain communities are focusing on ***climate mitigation*** and ***focusing more on shoulder seasons***. ***None*** specifically ***focused on*** tourism sector ***adaptation***
- Many are making infrastructure changes to ***enhance visitor experience***.
- Frequent mention of ***wildfire impacts and efforts to reduce wildfire hazards***.
- Natural ***habitat and restoration changes*** mentioned frequently.
- ***Local tourism effects considered*** as part of climate action plans.
- Use of ***taxes and other incentives*** directed towards businesses for sustainability/energy efficiency.
- ***Diversifying outdoor recreation opportunities*** and seasons of activity, to accommodate diminished winter season.

Academic Research on Tourism and Climate Change

- Academic research focused almost entirely on either sustainability and climate mitigation or need to address shoulder season demand and reduce peak demand.
- Recognition of outdoor recreation business impacts limited to reduction in precipitation and snowfall; effects of rising sea levels; impacts of higher temperature on tourism and environment; concerns about carbon impacts of travel, and increased operating costs for businesses.
- Risk analysis and disclosure of risk to various stakeholders frequently mentioned.
- Changes in consumer preferences and behavior regarding climate change is noted as increasingly important to investors, regulators, communities and businesses.
- Recognition of inherent conflict between wanting to increase tourism business while decreasing negative environmental and local impacts from tourism.

Top Actions by Other Communities

- The Sedona Chamber of Commerce, which adopted sustainable tourism as a core value several years ago, is partnering with the Sustainability Alliance on a sustainable business certification program. The program has multiple levels and is used by businesses in their marketing efforts.
- The City of Flagstaff is surrounded by the Coconino National Forest – the largest Ponderosa Pine forest in North America. A century of fire suppression has led to substantial undergrowth and increased tree density per acre. As a result, the fire risk has grown exponentially while the U.S. Forest Service lacks funding for mitigation. The City, with voter approval, increased property taxes to support forest thinning efforts in the National Forest.
- Whistler is building capacity to engage the significant “wildlife viewing” population. This is one of the largest outdoor recreations and one that is poorly monetized. Whistler recognized this was an opportunity for an additional revenue stream in a way that did not tax existing resources and diversified their tourism business.
- The State of Wyoming, Department of Natural Resources, is taking inventory of the most vulnerable natural assets in the state and will be attempting to assess a dollar value to these assets. Benefits come in the form of health care, infrastructure, recreation values, ecosystem services, etc. They will include the number outdoor user days, dollars spent, and jobs and earnings generated. They are working with local and Federal land-owners, and Insurance Agencies to coordinate fire mitigation efforts. They also will be assessing projected economic responses to climate change in terms of where people and businesses move to as a result of global warming.
- Breckenridge has a dedicated tax for open space and has developed 65 miles of trails. They are funding arts and culture with the Breckenridge Heritage Center, performing arts center, arts district, in order to create more visitor offerings. They closed down main street for an art show during COVID-19.
- Vail has focused on visitor education and visitor change management. They are working with the Forest Service to focus on trail overuse. They also work with energy savings to businesses through their Actively Green program, with 80 businesses involved.
- Moab has strongly focused on sustainable tourism and air quality. Working to develop robust visitor education program. Refocusing website to focus on "recreating responsibly".

Interview Conclusions

- Climate variability and change are already here and are anticipated to increase through mid-century.
- Communities and agencies are in early stages of addressing climate change, focused more on climate mitigation and community sustainability efforts than adaptation.
- Adaptation strategies to climate change must be considered within the context of generational change, recreation preferences, travel motivations, and technology.
- The vast majority of the tourism business community see climate change as a current and near-term threat and acknowledge adaptation should be a top priority.



Developing a climate adaptation strategy is consistent with Steamboat Springs being at the forefront of sustainable community economics

Steamboat Spring Tourism Industry Interviews and Gap Analysis

Steamboat Springs Tourism Industry Adaptation Gap Analysis

This section reviews the findings regarding, “(t)he current state of knowledge and awareness about climate variability, and adaptation currently occurring in Steamboat Spring’s tourism sector”.

These findings were achieved through a Steamboat Springs tourism industry survey, to obtain the state of knowledge within the industry of current and projected climate change and strategies to adapt to these changes; cataloguing current adaptation strategies underway in Steamboat Springs; and identifying gaps in adaptation efforts within Steamboat Springs and the ‘best practices’ being undertaken elsewhere.

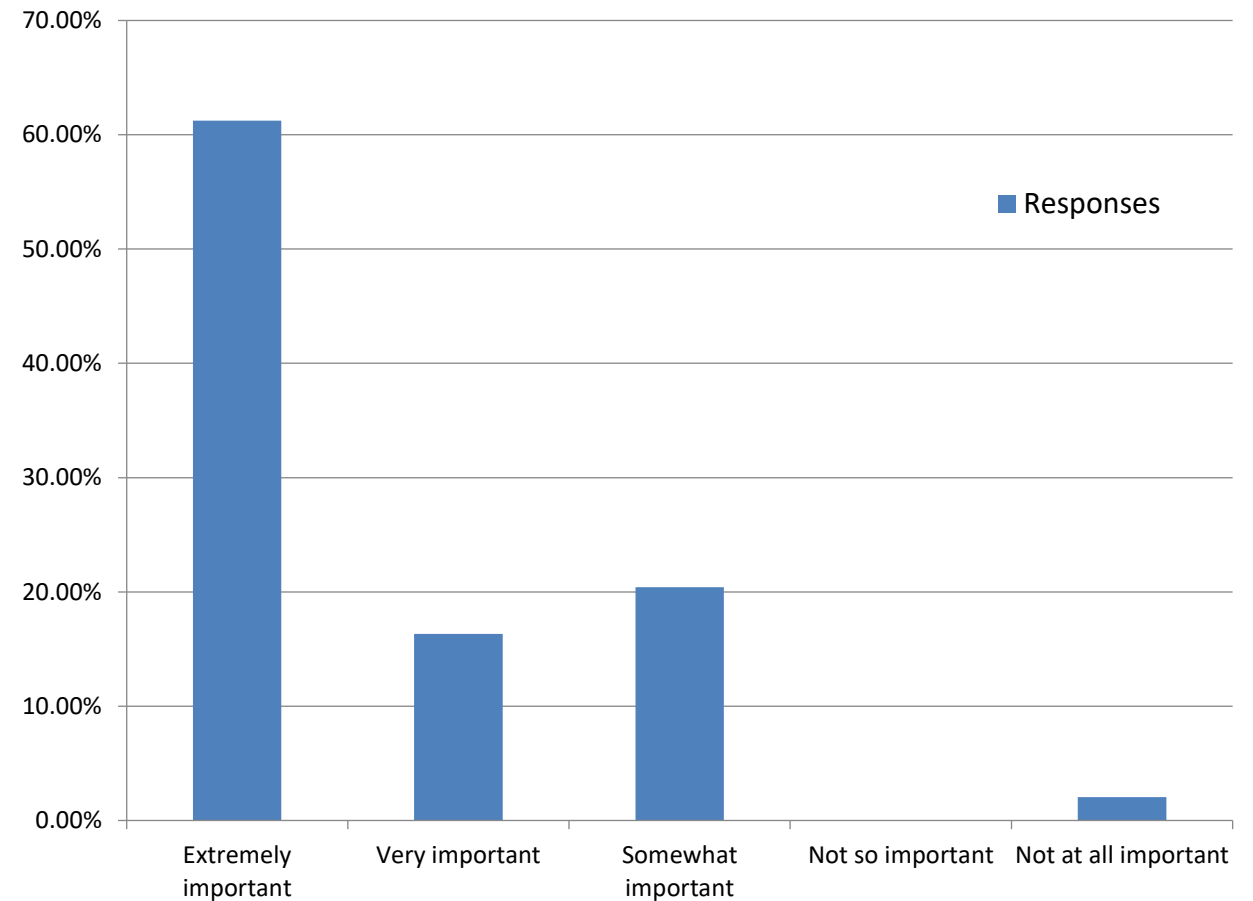
While the 49 respondents do not constitute a “statistically significant” sample size, it is a robust enough level, given the size of the Steamboat Springs’ tourism industry, to act as a trustworthy indicator of the overall views and perspectives of the industry.

Key Findings: Importance of Tourism

Over **61% of businesses responded that tourism was 'extremely important'** to their revenues, and **98% reporting tourism was at least 'somewhat important'**, with only 2% stating that it was "Not at all important".

This should not be surprising in an interview of businesses in a resort town. An interesting and valuable exercise would be to understand the vantage point residents hold regarding the importance of tourism to the regional economy. Any gap may present an opportunity for action and education.

How important is tourism to your business revenues?



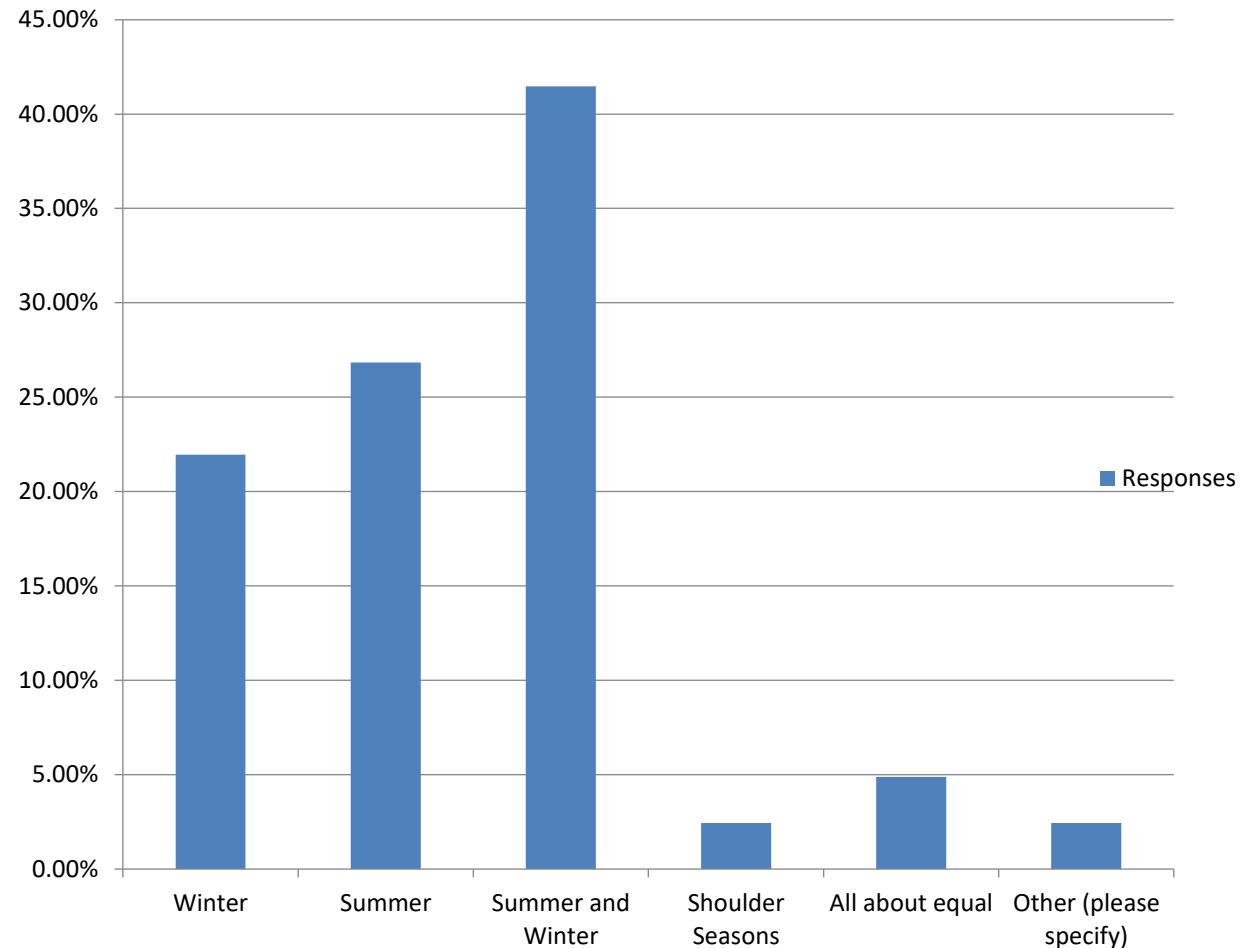
Key Findings: Peak Revenue

Also unsurprising is the reliance of the local tourism industry on the summer and winter seasons.

The good news is the high percent, **42%**, that ***derive substantial revenue from both winter and summer crowds***. This diversification between seasons is a strong hedge against the risks identified in the climate section and positions them to take advantage of the opportunities.

The low number of respondents identifying the '***Shoulder Seasons***' or 'All about equal' shows an underutilized time and ***an opportunity for the tourism sector to further diversify*** and for the city to ***increase its tourism draw without further straining the resources and assets*** that are maxed out in the winter and summer.

Which is your peak revenue season?



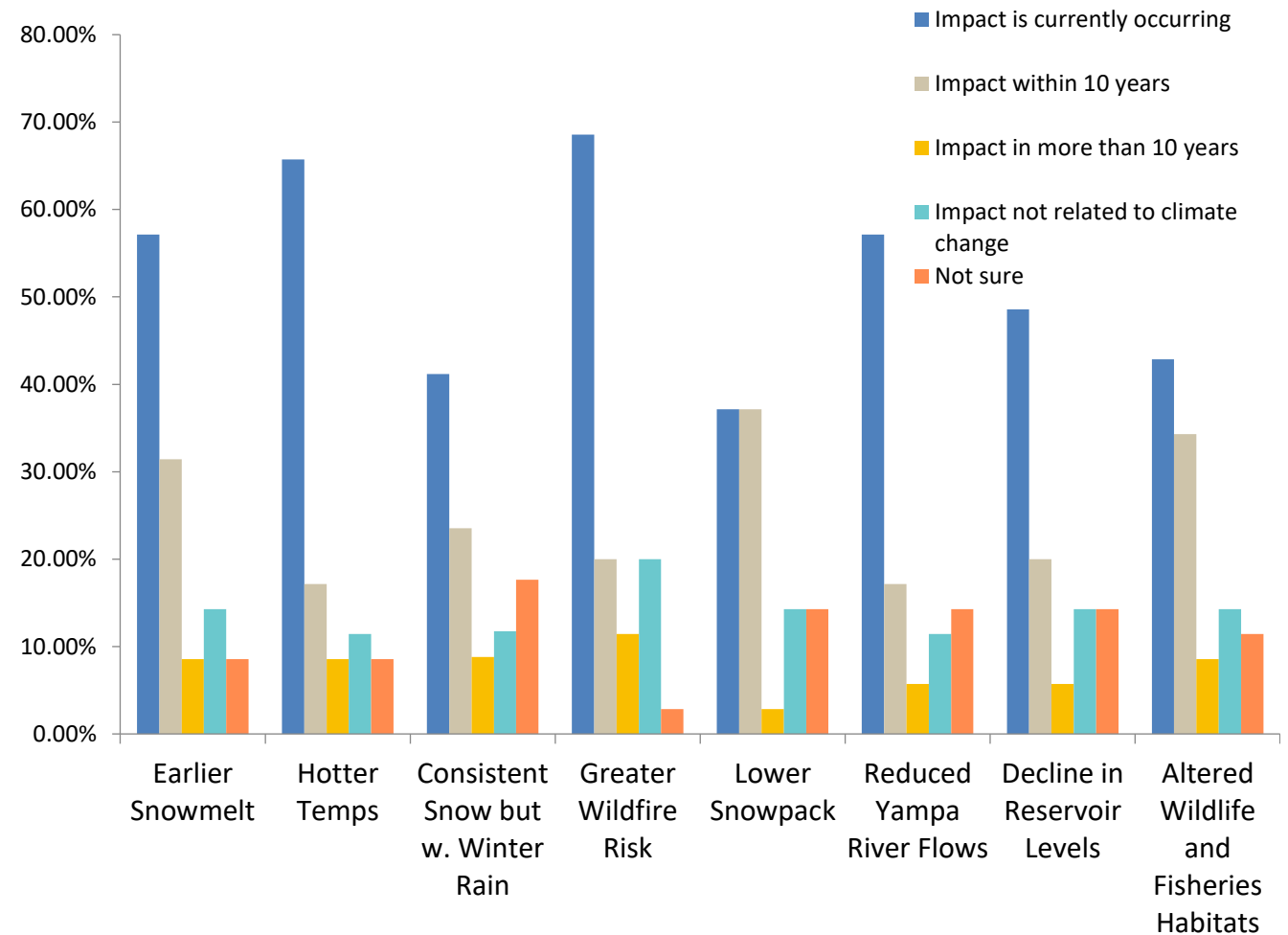
Key Findings: Climate Impacts

This survey question provided an intriguing insight into business owners' mindsets.

All climate issues were assessed as lower "substantial impact" the further the timeline from "currently occurring". However, in the following graph (next page) the next decade was given the higher rankings for having an overall negative impact on the local outdoor recreation assets and the local tourism industry.

What this slide really seems to indicate is that ***business owners see these impacts occurring currently and feel the changes are having a substantial impact, but are less certain about the significance of the impacts moving forward.***

Indicate if there is a high likelihood of substantial impact from each of the following currently or in the future.



Key Findings: Climate Impact Survey

This question was similar to the previous one but is specifically focused on the impacts of climate change on the tourism sector and outdoor recreation assets.

Two insights are gained through this graph. First, for those who recognize the impacts of climate change in Routt County, that have a position as to whether climate change is, or will be, a positive or negative for Routt County, 95% view climate impacts as negative.

The second insight is that 44% of respondents were neutral or uncertain about whether the various impacts were positive or negative.

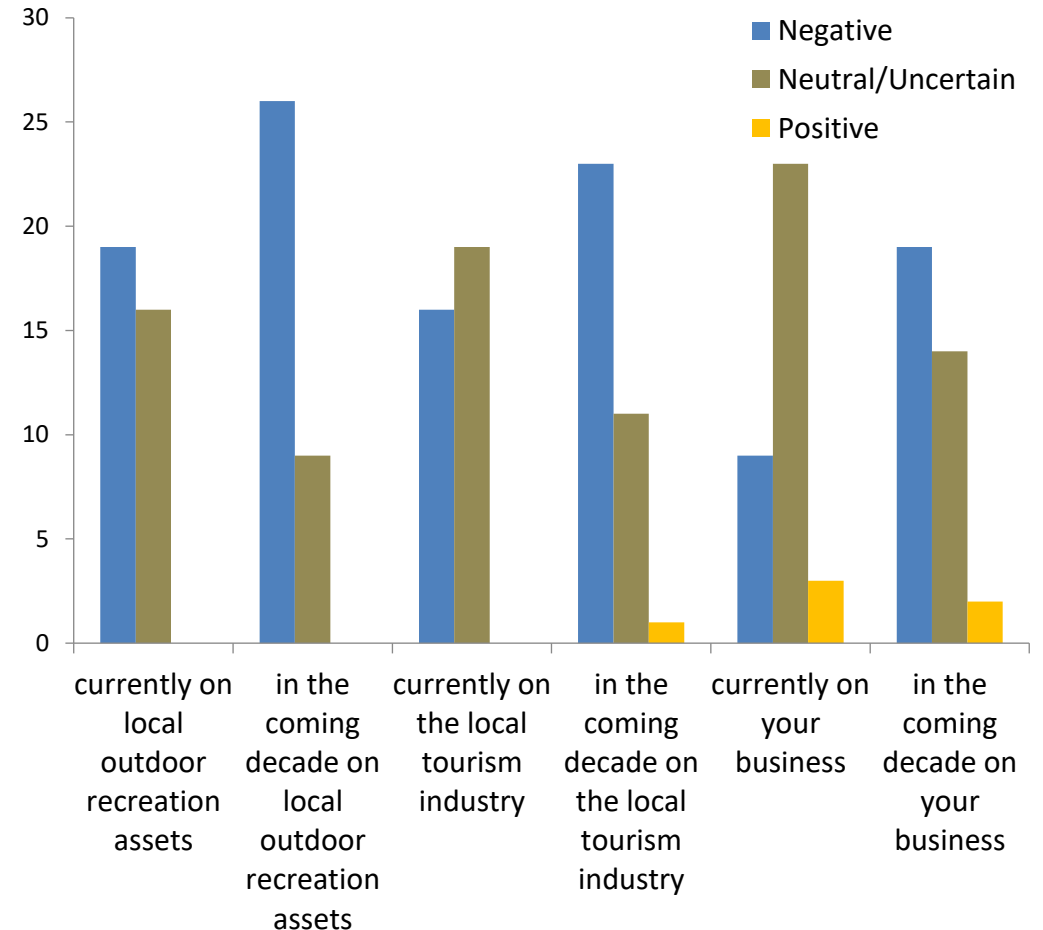
The “neutral/uncertain” respondents may not have enough knowledge about the current or forecasted realities of climate change to state an informed position. This presents an opportunity to educate them about the findings in this study.

The negative assessment of the impacts of climate change may expose a need to educate the tourism industry that ***there are opportunities and competitive advantages that arise from current and forecasted climate change.***

These are outlined in the [‘Climate Impact’](#) section of this report and include:

- Competitive advantage over other winter activity destinations throughout the US because of benefits from altitude and increased mid-season snowpack.
- Cooler climate and water activity opportunities for visitors coming from increasingly hotter climates.

On a scale of extremely negative to extremely positive what do you think the overall impact of climate change is/will be on Routt County?



Key Findings: Climate Action

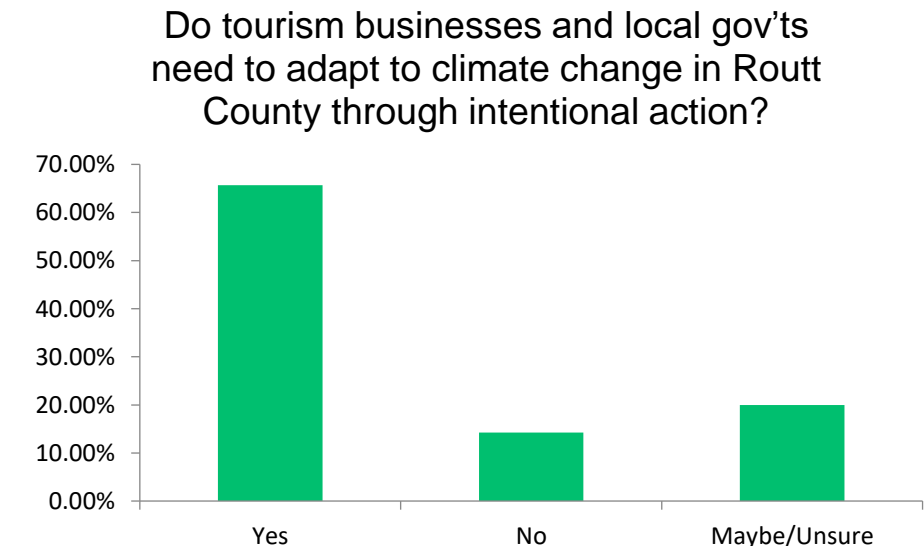
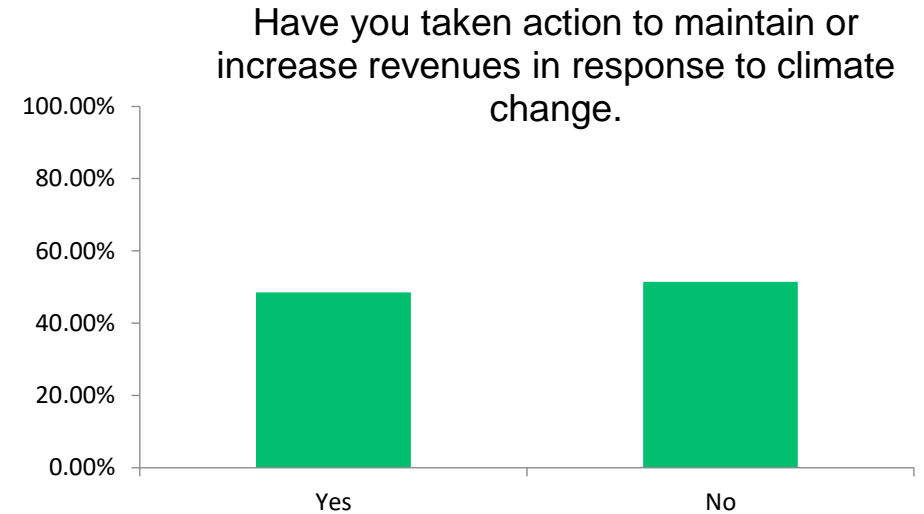
The top survey question enquired about actions taken in response to climate change. The split between companies who stated they had and had not initiated action to “maintain or increase revenues” was fairly even, with 51% claiming they had not and 49% claiming they had.

However, when asked about adaptation strategies, there was some confusion. The responses tended to be focused on mitigation (sustainability and net neutral).

Despite only 49% stating they had taken some sort of action, the bottom chart shows **66% felt some “intentional action” needed to be taken in order to deal with climate change.**

This is in alignment with the experience of interviewing other communities. There is awareness that we need to think about “how do we adapt to climate change”, but there has generally not been intentional action and thought into making this happen. Instead, communities respond to climate change the only way they know how: reduce a community’s footprint and mitigate their contribution to climate change.

Steamboat Springs appears to be a thought leader in adapting to climate change and taking action on a deeper level.



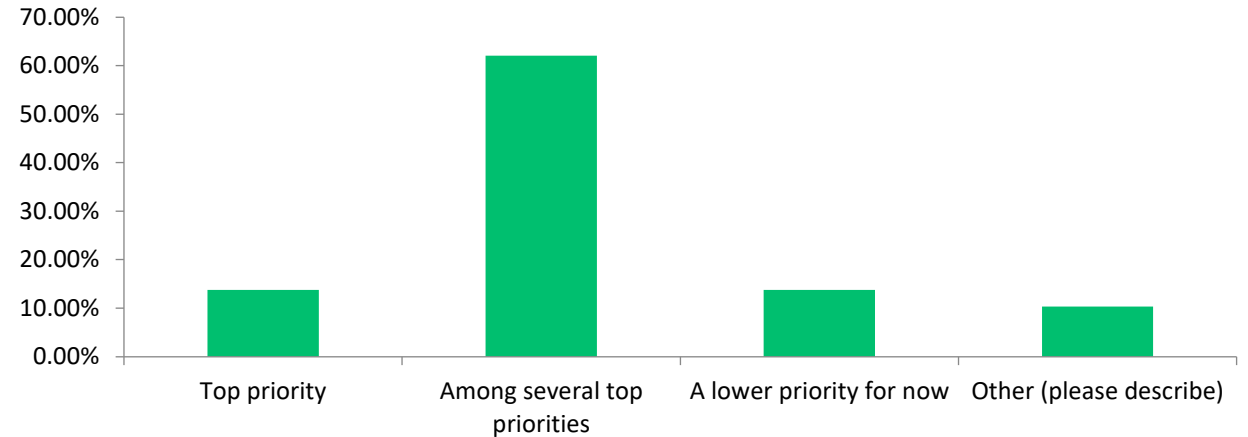
Key Findings: Priorities & Engagement

When asked about prioritizing intentional action to adapt to climate change, **76% of respondents stated they believed doing so should be a top priority**, though only 12% felt it should be the top priority. Only 14% believe there is no need for intentional action

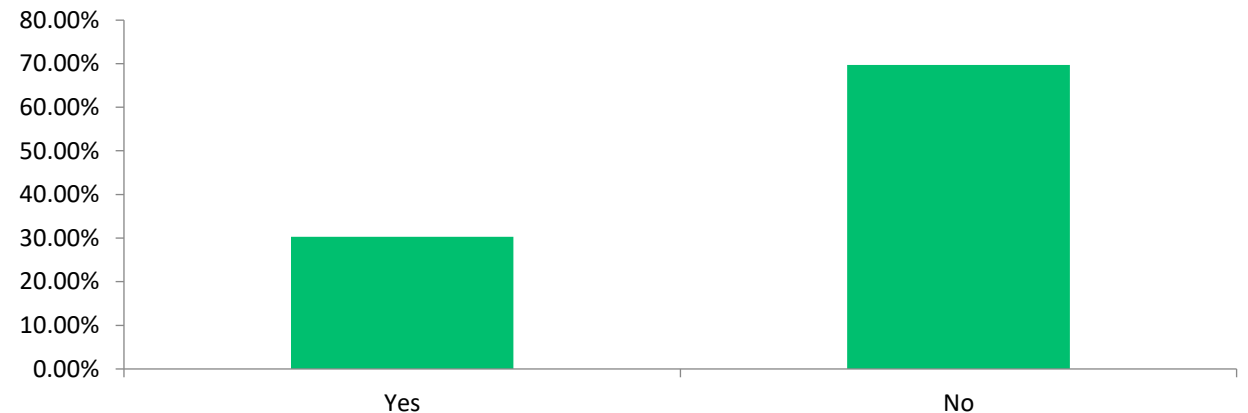
One-third of respondents stated they are interested in continuing their participation with this adaptation effort.



What priority should be placed on taking intentional action?



Are you interested in continued discussions about adaptation to climate change?



Tourism Business Community Survey – Word Clouds

What adaptation strategy would you recommend for the tourism industry and its stakeholders?

stakeholders charge diversifying opportunities many make
climate change tax work strategies

mountain Steamboat will air shoulder season spring
tourism want people summer think

Opportunities

- Varied ideas
- Outdoors
- Rural western atmosphere

Threats

- Snow connected to river flow
- Government & regulation
- Overcrowding issue
- Housing, incomes, employee retention

greatest threat covid will drought Lack snow Locals
Climate change increase summer snow impact

Interviews and Gap Analysis: Key Points

- 98% of the Steamboat Springs tourism business community acknowledged the importance of tourism to their operating revenues.
- The industry understood that climate impacts are currently occurring, and are significant, but they are uncertain how the impacts will continue into the future.
- There is concern that the coming decade will result in significant negative impacts on both the local natural recreation assets as well as the region's tourism industry.
- There is an opportunity to educate the industry on the opportunities and competitive advantages that arise from current and forecasted climate change.
- 66% felt “intentional action” needed to be taken in order to deal with climate change.
- 76% of respondents stated they believed doing so should be a top priority.
- Shoulder seasons are underutilized and an opportunity for the tourism sector to further diversify and expand.

Insights from City of Steamboat Spring 2017 and 2020 Community Surveys

General Insights from Residents Research

Steamboat Springs conducts a residents' survey on a periodic basis. The survey seeks to gain insights into perceptions of residents on special topics, city services, and key community attributes, which can be compared against other communities conducting similar surveys.



Living in Steamboat Springs (2017 Survey)

- The community rates very high as a place to live and for its quality of life.
- Second homeowners, higher income households, and older residents are more likely to be net promoters of the area.
- 30% of respondents who reported working full or part-time owned a business in Steamboat Springs, 10% owned commercial real estate, and 29% indicated their work is location neutral.

When compared to other communities (2017)

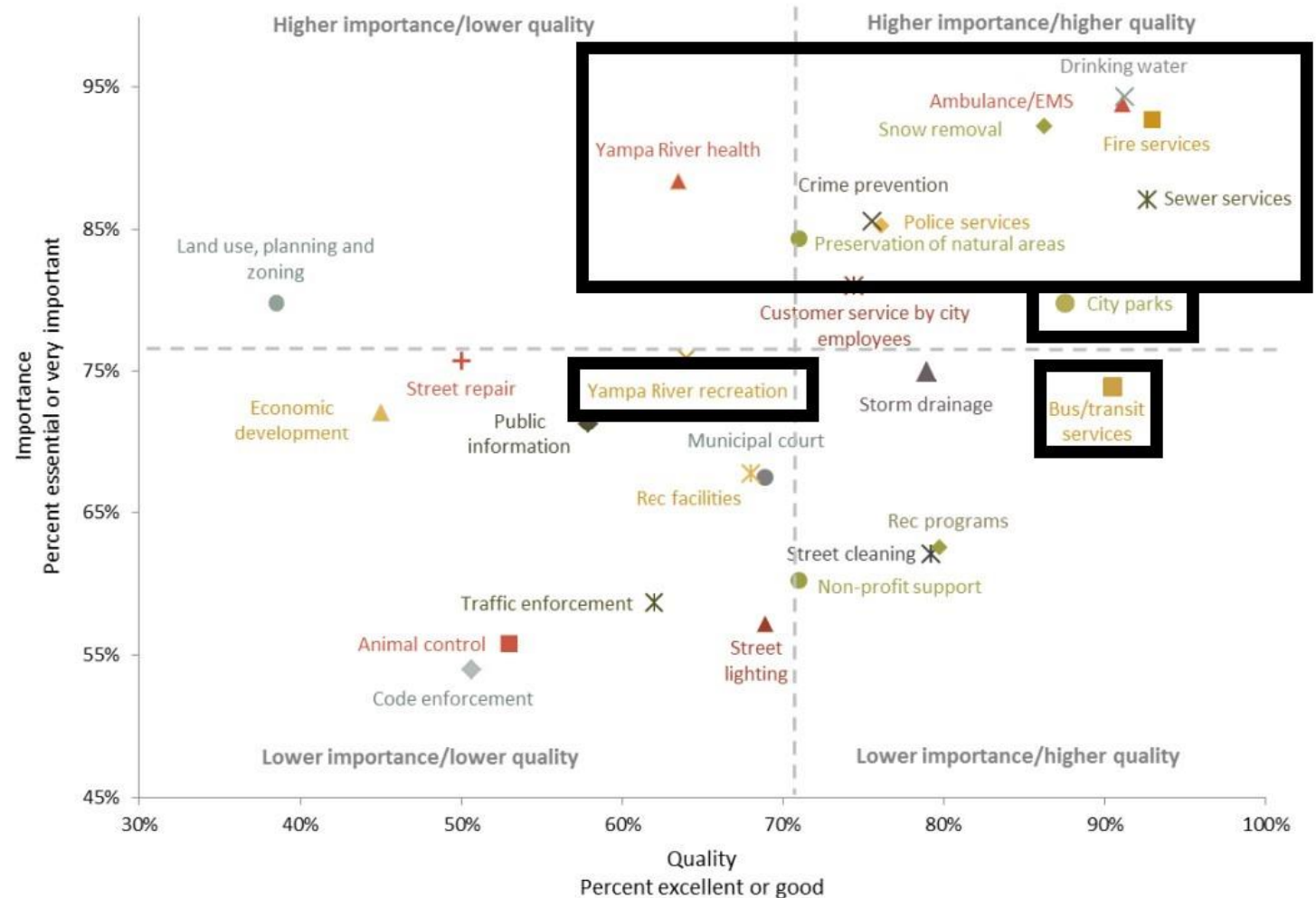
- Steamboat Springs is an excellent place to live where residents feel safe and a high rating for the natural environment and health and wellness opportunities.

Visitors utilize and contribute significantly to important City services

The 2017 Steamboat Springs Community Survey rates the quality and importance of city services among residents. The most important and highest quality city services are largely consistent between residents and visitors. The services shown in boxes are generally more important to visitors, and the overall quality of their stay, even though they are typically unaware of these services unless they experience poor quality.

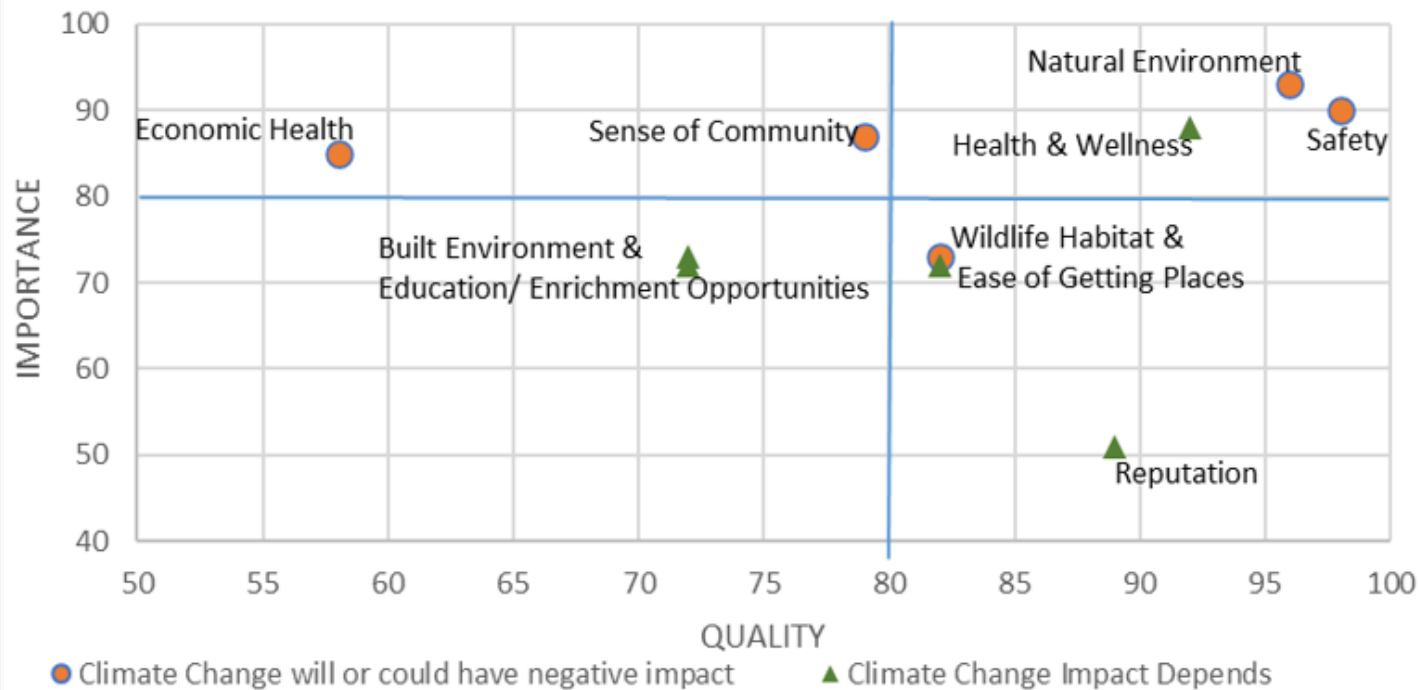
In Steamboat Springs, visitors contribute financially to the services through sales tax, economic multipliers from local spending, and second home construction and maintenance.

Figure 20: Comparing Quality and Importance of City Services



Compatibility Between Residents & Visitors

Steamboat Springs Resident Perception
of Quality & Importance
(% responding in top 2 categories)



Climate Change directly threatens the natural environment and wildlife habitat and could threaten the safety of the area as well as alter socio-economic dynamics. How the other attributes are impacted depends on investment and management.

The chart shows preliminary results from the 2020 City of Steamboat Springs Community Survey. Residents were asked to rate the importance and quality of the attributes shown. Their ratings are consistent from prior surveys.

These attributes have differing levels of importance to visitors with 'Natural Environment' being essential for both residents and visitors in Steamboat Springs.

Safety is generally assumed to be acceptable by visitors to most tourist destinations and impacts overall reputation along with the ease of getting around and wildlife viewing opportunities.

'Health & Wellness' and 'Education/Enrichment Opportunities' motivate some tourists to select certain destinations, similar to some tourists preferring outdoor recreation versus built urban environments.

The Sense of Community and Economic Health are important to visitors to the degree the attributes impact customer service, safety, and appearance of built amenities. Based upon summer tourist surveys customer service and friendliness are excellent.

Resident Views of Tourism Impacts

How much do you agree or disagree with each of the following statements:	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Total	
Tourism is an important part of the identity of Steamboat Springs	64%	27%	5%	4%	100%	N=707
Tourism has a positive impact on our community because of the number and kind of amenities (shopping, restaurants, entertainment, etc.) it helps make available in a city our size	49%	36%	11%	4%	100%	N=708
Tourism has a positive impact on our community because of the tax dollars and jobs it generates and the boost to local businesses	55%	36%	6%	3%	100%	N=704
Tourism has a negative impact on our community because of the crowding	34%	40%	18%	8%	100%	N=710
Tourism has a negative impact on our community because it makes it much less affordable to live here	43%	36%	13%	7%	100%	N=707
City of Steamboat Springs 2020						

Preliminary results from the City of Steamboat Springs 2020 Community Survey shows residents realistically assess tourism impacts. Most notably they agree tourism is an important part of the community identity and has a positive impact on the local economy. Slightly fewer residents agree that tourism is positive due to the number and kind of amenities created (85% versus 91% for identity and economy).

Just under 80% of residents agree there are negative impacts associated with crowding and higher costs of living in the community.

On the whole, 81% of residents find the net impact of tourism to be positive.

Steamboat Spring Tourism Industry: Research Findings & Conclusions

Major Takeaways from Study Effort

- Climate change has been significantly occurring is expected to continue and accelerate. The changes and the severity of impacts will increase over time. Ecosystems and economies will be disrupted and altered as a result.
- Many communities are adopting climate mitigation plans and sustainability plans indicative of a growing awareness and collective moral commitment to the future. However, none interviewed specifically pursuing a Climate Adaptation Plan.
- 66% of Steamboat Springs businesses surveyed believe intentional action needs to be undertaken to adapt to climate change and 76% indicate it should be a top priority. Therefore, this effort has legitimacy from the business community.
- The non-business community is highly engaged with Steamboat Springs visioning and planning, participating in frequent community surveys. Those surveys and a broad knowledge of Steamboat Springs and Routt County suggest the community is encouraging of broader sustainability initiatives including sustainable tourism and destination management, that integrates the impact on local well-being and the local environment into planning efforts.



Major Takeaways from Study Effort - Tourism

- The 10-to-30-year forecasts of climate change impacts and seasonal variability are well understood and established. The impact climate change will have on the local tourism industry is less certain.
- Colorado summer tourism has always benefitted from travel motivated by cooler weather and this is likely to continue, and grow, and will probably expand more into the shoulder seasons.
- Impacts on winter tourism are more questionable as the ski industry could be in decline even without climate change due to demographic transitions. However, the local ski industry could benefit by having enough altitude and snowfall, relative to other ski areas around the country and world, due to changing environmental and market conditions. In all likelihood, the natural snow season will shorten and the shoulder seasons will grow longer.
- Water availability for snow making and ensuring adequate flows in the Yampa River and its tributaries will be key for the tourism industry.



The Outlook & Key Drivers

Short-Term 0 to 10 Years

- Temperature increases and weather disruptions along w/ heightened wildfire risk
- Generational transition from Boomers to Millennials
- Smart online technology
- Demographic adaptation of outdoor recreation
- Advancement of renewable energy
- Migration momentum into Colorado and Utah

Long-Term 10 to 30 Years

- Ecological transition from climate change
- Peaking population globally
- Water shortages and costs
- Transformational technologies
- Federal debt levels
- Vacillating Globalism
- Racial, ethnic, and cultural diversity
- Declining fossil fuel reliance and severe weather impacts on Houston

From Interviews & Research: Strengths & Weaknesses

Strengths

- Strong reputation and high visitor satisfaction
- Abundant natural beauty and tourism related assets
- Good working relationship with strong parallel institutions like CMC, local environmental non-profits, government agencies, ski area, local governments
- Quality of life allows easier time attracting workforce and location-neutral workers
- Strong ethos of community involvement and efforts to be on cutting edge in sustainable development

Weaknesses

- Conflicting goals– local preferences vs tourism
- More distant than some other competitive tourism areas
- Potential capacity issues in multiple areas
- Interactive visitor website can be developed/improved
- Local public sector fiscal structures highly dependent upon tourism
- Limited geographic reach of primary market area – Colorado Front Range and Texas, especially Houston.

From Interviews & Research: Opportunities & Threats

Opportunities

- Ability to increase tourism from areas that are experiencing higher temps and less snow
- Changing demand for tourism opportunities across market segments
- Leading in addressing business impacts of climate change with climate adaptation and mitigation strategies.
- New technology can be adopted to assist 'destination management' attempts to create better balance between environment, local experience, tourism/crowding, and business.
- Potential exists to build around education / non-profit element with sustainable adaptation focus

Threats

- Climate change leading to earlier snowmelt, greater wildfire risks, and impacting recreation ecosystems
- Warmer water and lower average flows in the Yampa threaten both recreational use and agriculture
- Ski resort, while benefiting from warming at some competitors, still affected by weather volatility
- Limited resources to implement all actions
- Trail overuse leading to declining attractiveness and higher maintenance cost
- Status of federal lands

The Greatest Opportunity: Marketing & Branding

- Maintain core strengths as an outdoor oriented destination.
- Accommodate aging visitors for next 10 to 15 years.
- Emphasize and encourage areas of growth from climate, recreation, and demographic trends.
- Build brand with Millennials to maintain market share post-boomers.
- Aggressively pursue new markets through:
 - Hyper marketing
 - Maintaining and expanding air transportation to largest markets.

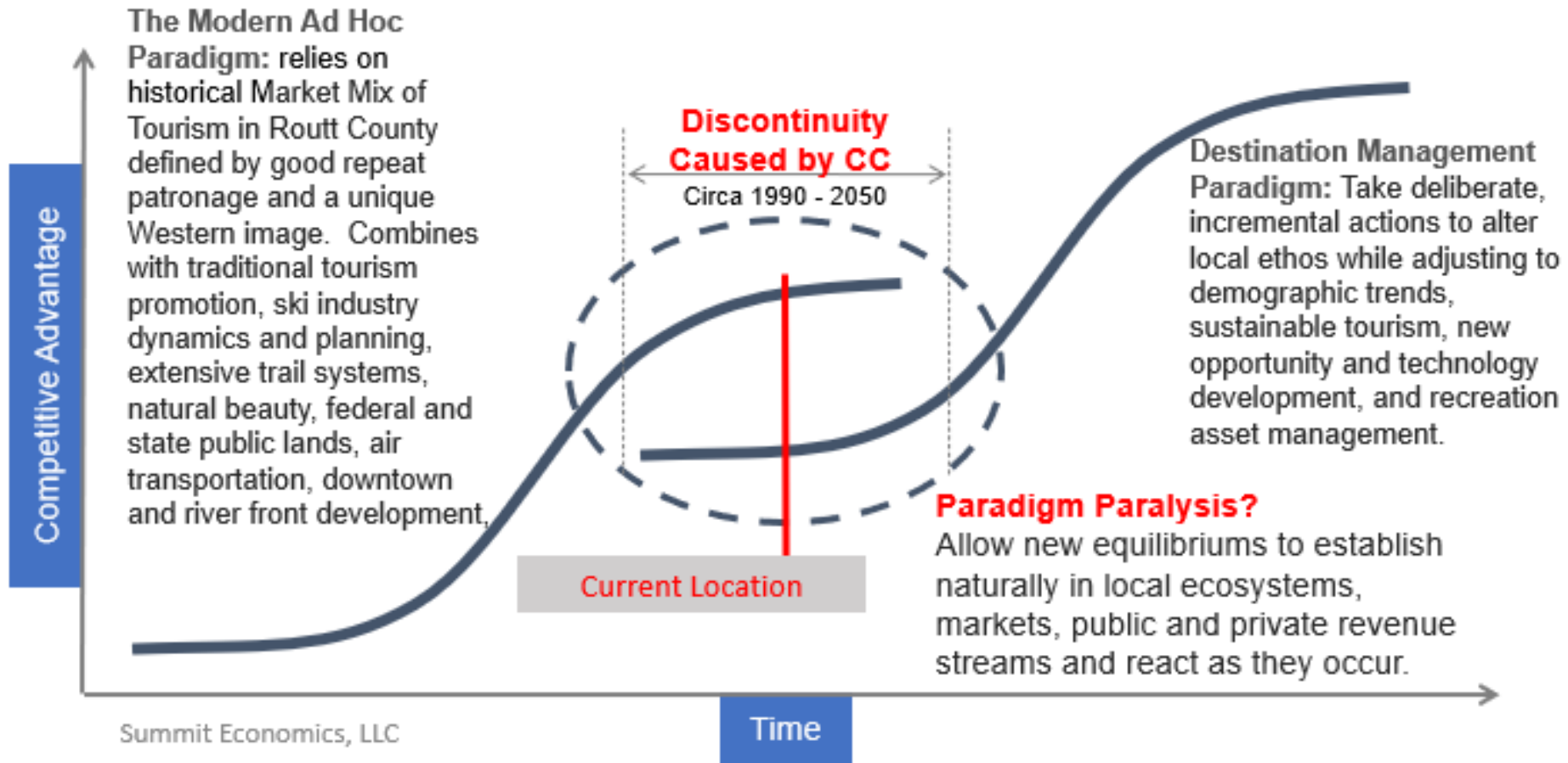
Adaptation Strategies and Action Steps

This section outlines adaptation strategies and specific action steps identified in the interviews with Steamboat Springs' business community; lessons from research and interviews outside of Steamboat Springs; and brainstorming with the project management team.

These strategies and action steps are focused on:

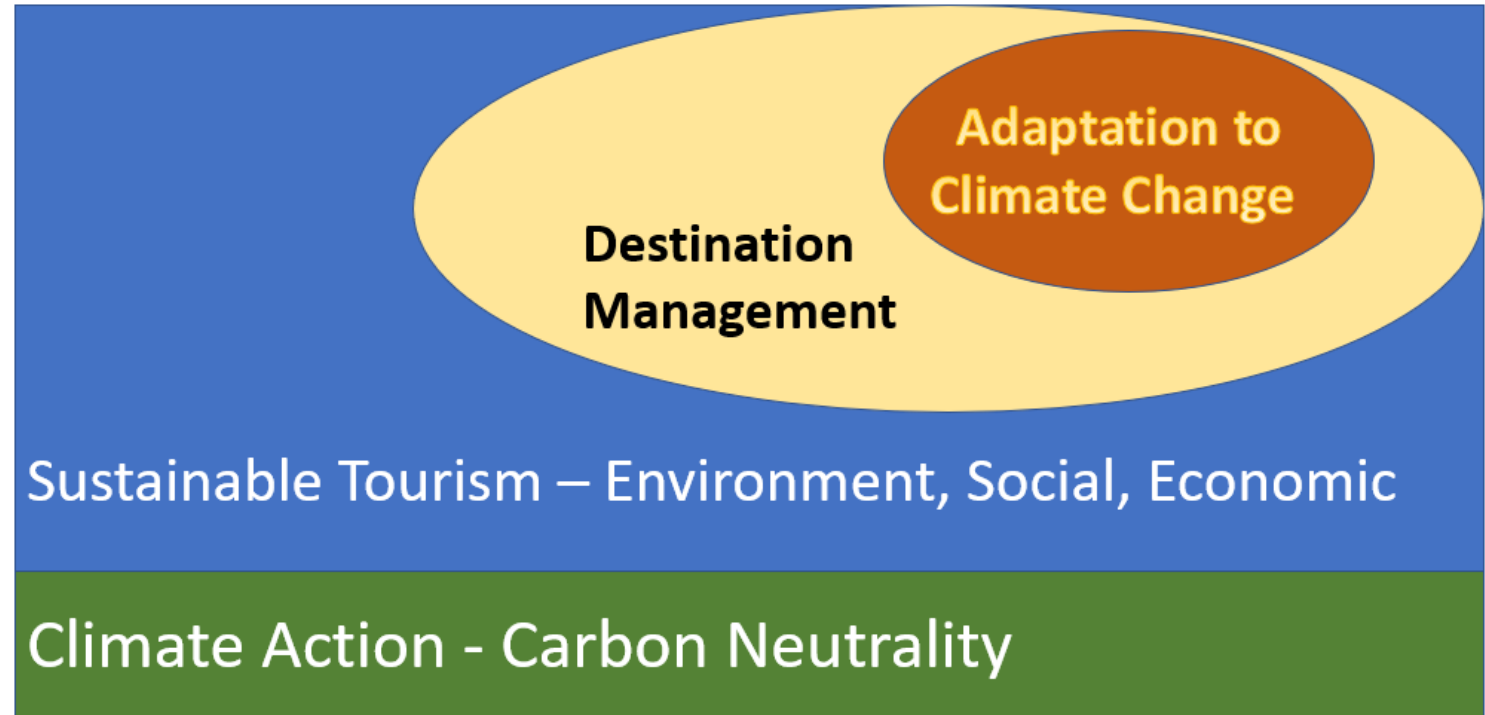
- Using the best practices from elsewhere;
- Those areas deserving attention in a community gap analysis;
- Additional areas identified as requiring additional consideration.

Adaptation in the tourism industry is necessitated by the discontinuity created by climate change



Context of Climate Change Adaptation

Many communities in developed economies are now embracing **climate mitigation** as a moral imperative. Tourist economies highly dependent on outdoor recreation assets have adopted **Sustainable Tourism** initiatives with leaders being in the Pacific Rim of Asia and Australia. **Destination Management** is rapidly emerging as a public/private partnership approach to managing tourism, typically embracing sustainable concepts.



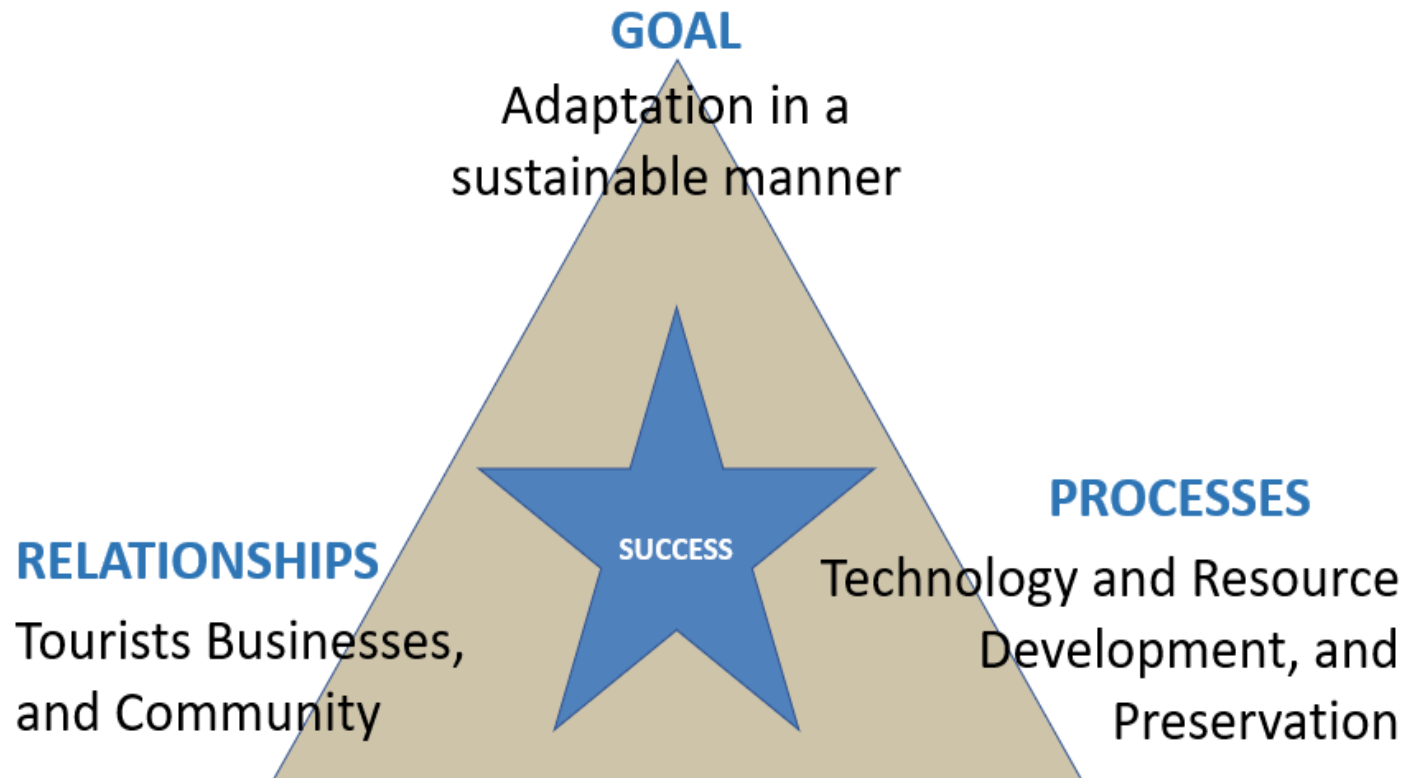
Adaptation to Climate Change is in the introduction stage with Steamboat Springs being an innovator. It acknowledges the value of other mitigation/emission reduction efforts while adapting to changing conditions that are well underway.

What defines successful adaptation?

Successful adaptation of Steamboat Springs outdoor recreation tourism businesses is defined by three factors:

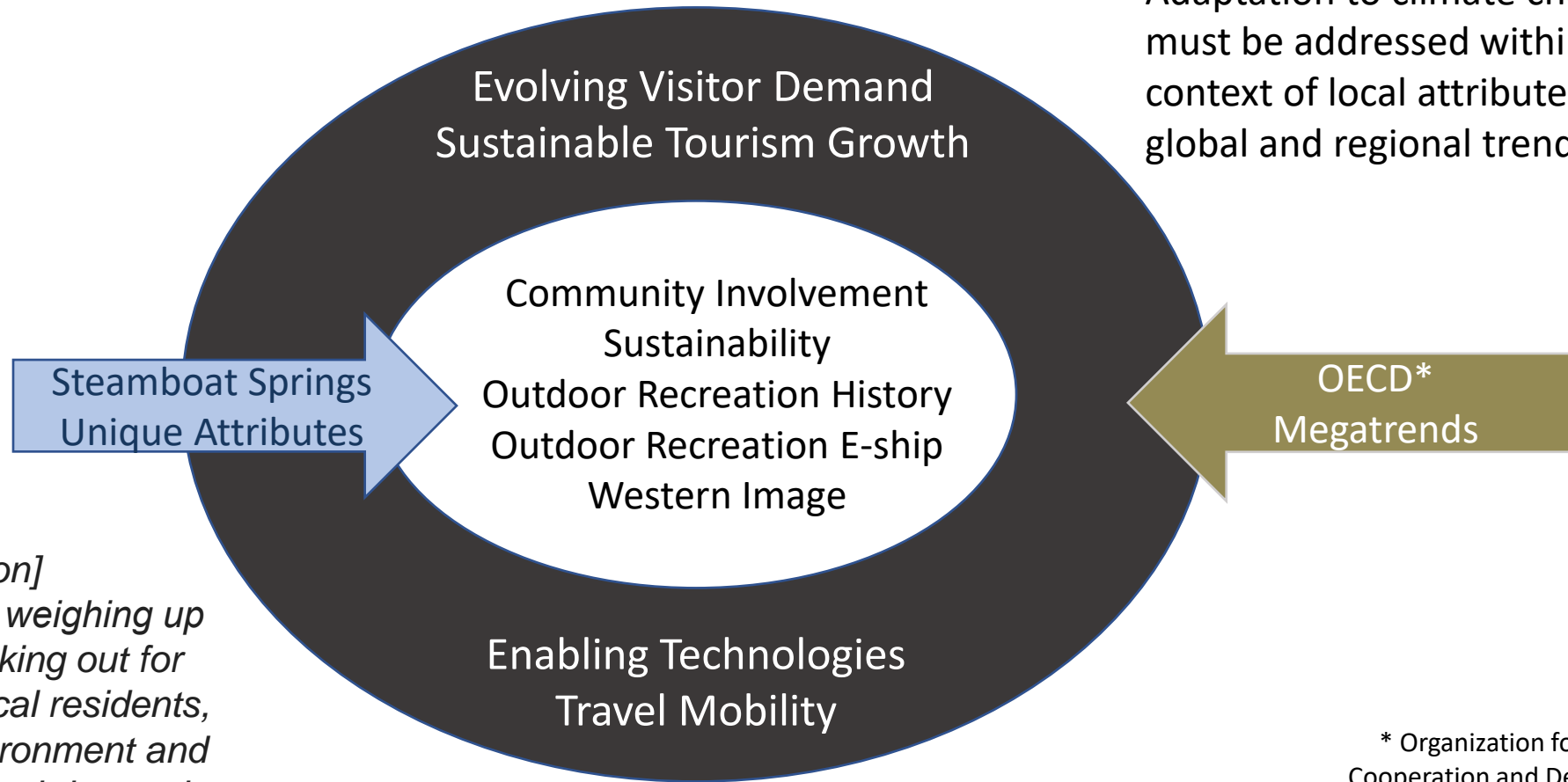
1. Reaching your goal, while:
2. Maintaining and strengthening key relationships, and;
3. Developing and executing the right processes.

The recommendations made in this section are done so with these three factors in mind.



Destination Management: Adaptation Within Broader Tourism Context

Adaptation to climate change must be addressed within the context of local attributes and global and regional trends.



Tourism [Destination] management is ... weighing up pros and cons, looking out for businesses and local residents, protecting the environment and balancing supply and demand

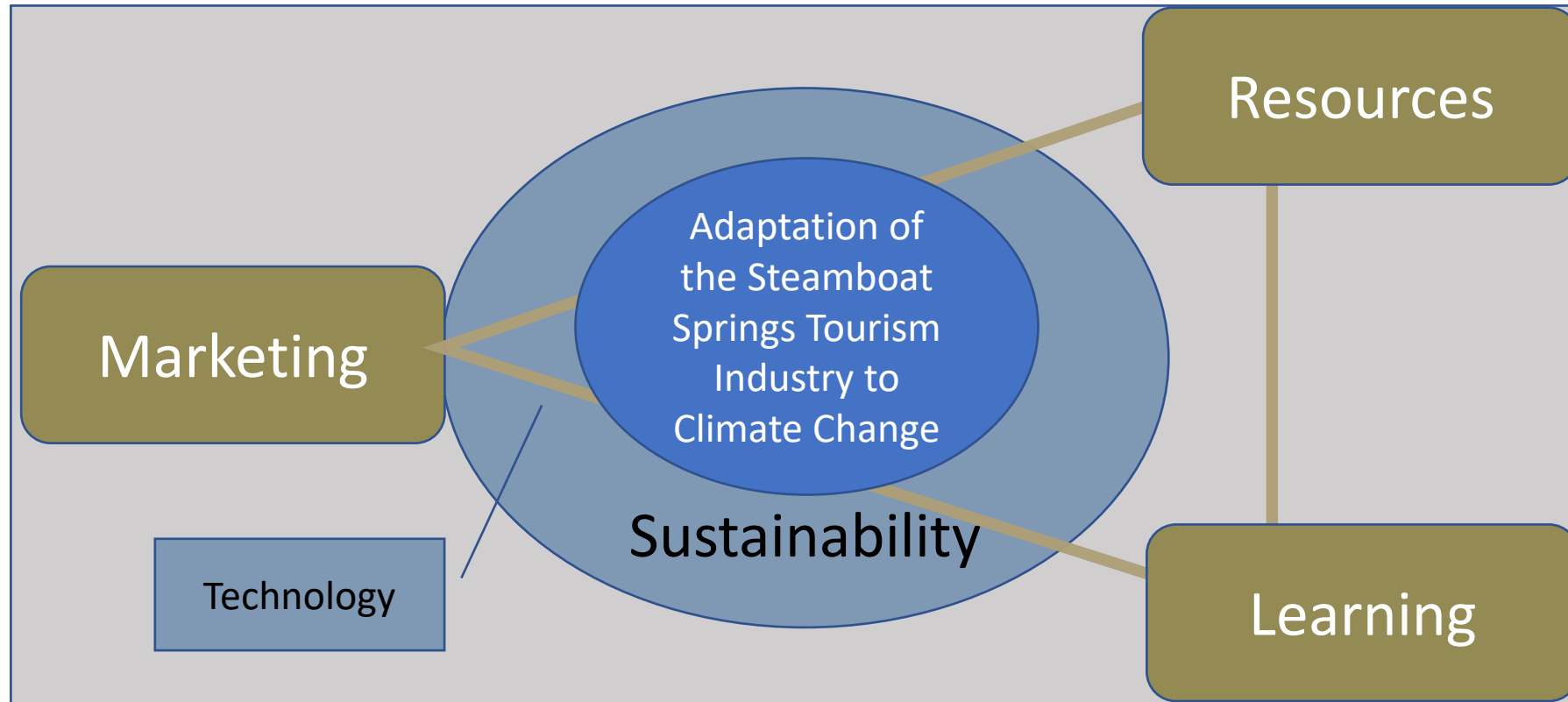
* Organization for Economic Cooperation and Development

Effective Destination Management Structures

Lessons from around the world suggest that an effective destination management structure:

- *Is a **collaborative structure** that combines the interests, skills and knowledge of 'stakeholders' across government, industry and the community, as highlighted in the Barossa Valley with the establishment of the Barossa Wine and Tourism Association bringing together a range of stakeholders to guide tourism planning, development and marketing;*
- *Develops a **clear stakeholder agreed strategic direction** for the development, management and marketing of tourism in a destination;*
- *Establishes an **agreed 'vision' and image for a destination** based on the values of the destination and its stakeholders;*
- *Establishes **clear roles and responsibilities** for all stakeholders across all elements of destination management and decision-making;*
- *Address the complexities of decision-making and approval processes by **developing strategies and partnerships to minimize the levels of decision-making**;*
- *Recognizes that **public-private partnerships** are an efficient way to manage and promote destinations;*
- *Establishes **cooperative arrangements with partners** to ensure effective communication and collaboration. Partnership agreements or MOUs between stakeholders can be used to articulate the governance framework for managing a destination, as highlighted in Victoria's Geelong Otway Tourism's bottom up approach to destination management, establishing MOUs with Local Governments and Local Tourism Organizations and encouraging industry membership;*
- ***Allows local tourism leaders to become destination champions**, as in the case of Leeds in the United Kingdom where tourism champions encourage stakeholder participation, foster innovation and assist in the development of a committed and shared approach to tourism management.*

Destination Management - Vision & Key Result Areas



The **Vision** at the center must remain consistent with the local core values of **Sustainability** while achieving significant success in the four key result areas – **Marketing, Resources, Learning,** and integrative **Technology**.

Broad Targets & Marketing Approaches

Tourists
Full Marketing
Strategy

**Tourist Oriented
Businesses**
Engagement and
Innovation Strategies

Residents
Public Relations,
Awareness and
Sentiment Analysis

Tourist Marketing: Product, Promotion, Place, Price & Targets

From Front Range and Texas Boomers



Traditional Promotion to Targeting using big data, AI, web mining, and social media

Western brand to include Authentic Sustainability

To Millennials from warmer, higher income locations

Skiing, Mountain Biking, Tubing, Sightseeing, Trails
AND

Lower impact activities aided with smart and connected technology

Tourist Marketing Opportunity Matrix

	Existing Products	New Products
Existing Market	<p>Penetration: Desirable in some segments like skiing as industry size shrinks due to more limited supply and possibly demand; however, Steamboat Springs and Routt County seem to thrive on a relatively low market share with an estimated 1 million visitors per year.</p>	<p>Product Development: To focus on new technologies and low impact product extensions and development to lower demand on any single high risk or vulnerable outdoor recreation asset and to meet emerging Millennial preferences as well as higher industry price points</p>
New Market	<p>Market Development: Incrementally test ROI of advertising dollars to keep visiting visitors within Routt County and Steamboat Springs longer, attracting lower impact visitors using hyper target marketing/promotion, education, desired brand affinity, and more.</p>	<p>Diversification: Incorporate elements of New Markets and New Products to support innovation and possible expansion into tourism related to agriculture, personal causes, and education.</p>

Marketing: Tourism Business Engagement

Unlike shopping malls and corporate-owned tourist destinations like ski areas that control most aspects of the customer value proposition, downtowns and tourist-oriented communities must guide, incentivize, and motivate partners (businesses, and investors) to actively engage to plan and implement adaptation for their own business/investment as well as the overall industry. The alternative is to observe ad hoc market changes. Given the situation, intentional action is no simple task, especially if the business environment does not create a sense of urgency and is too heavily focused on intra-industry competition rather than collaboration. Avoid the temptation is regulate business practices unless requested by the industry itself.



Encouraging Business Adaptation

- Monitor and publicize the changing natural and business environment
- Maintain and promote a positive narrative about the tourism industry to encourage community support
- Encourage green business branding via tiered sustainable certifications with a special Climate Adaptation certification
- Identify business Champion(s)
- Celebrate successful and innovative adaptive ideas
- Provide adaptation assistance like research and selective incentives
- Encourage informal business-oriented networking groups centered on climate adaptation, sustainability, and technology

Resident Marketing: Public Relations & Awareness

Steamboat Springs has robust citizen involvement supporting a high quality of life and well-being. The local values epitomize community economics where broad based grassroots visions drive the future along with a history of entrepreneurship and high achievers. Tourism and sustainability have strong roles to play and provide synergies in both the current levels of wellbeing and the climate adaptation process. Reinforcing these positive attributes is important.

An interactive approach should be taken by the tourism industry in public relations with a focus on maintaining the current awareness of positive synergies that exist between residents and visitors. Local sentiment should be measured on an ongoing basis through social media and the periodic surveys.

Tourism generates more than just sales taxes. It also allows for a diversity of businesses to be enjoyed and strengthens a robust construction and home maintenance sector through second homes and vacation rentals and motivates a greater number of flights into the area thereby lowering the cost. While some residents express frustration by the peak visitation periods, this is to be expected. Overall, local perceptions and attitudes provide a strong starting point for destination management in Steamboat Springs.

Analysis of the Colorado Municipality Finance Compendium (DOLA, 2013 data) **suggests the total revenues of the City of Steamboat Springs would be significantly lower were the community not a tourist destination.** The higher revenues drive higher expenditures and more public services. Tourists also help the community achieve higher business thresholds for most private services which enhance resident consumer choice and quality of life.

Learning

Instill the attitude in the local culture

- Build upon the strength of a local college with many programs already oriented towards sustainable practices with technology integration for analytics, apps, and artificial intelligence.
- Repeatedly inform visitors and residents of the risks faced in Routt County, especially wildfire, and provide them with tools such as apps to moderate usage of outdoor recreation assets.
- Develop focus on risk and opportunity assessments versus basic cost decision making. Systems thinking and ‘lifecycle cost analysis’ key.
- Encourage understanding of the “sharing economy” to facilitate lower cost solutions to community and industry challenges.

Resources make it all work

- Climate change will challenge preservation of existing natural resources and outdoor recreation assets everywhere. Unfortunately, there will be tragic outcomes, but new opportunities will also emerge.
- Adaptation requires investment and intentional action – both private and public. Given the generally scarce nature of financial resources, budget reallocation must be addressed until new resource pools can be identified. High quality, high demand destinations can absorb higher pricing in the form of taxes, fees and donations to fund destination management efforts. It is all about the value proposition being offered, tourist segment being targeted, and benefit relative to cost.
- Human resources, or workers, needed for tourism services must be monitored during the adaptation process. Climate change is likely to change migration patterns among all socioeconomic segments. Technology will provide alternatives to employees, thereby enhancing productivity, in selected subsectors. The lack of affordable housing with nearby public lands tends to encourage outdoor camping/living by some members of the labor force during peak summer seasons. This creates additional risks to natural resources.

Sustainability



Sustainability has multiple meanings depending upon the specific situation and context. In the business world, people discuss the triple bottom line. In many circles the focus is on being environmentally friendly to support existing natural ecosystems and habitats. In a more political context, the emphasis might be on enhanced social equity such as decent wages or affordable housing. **The common theme is about achieving a balance recognizing there are tradeoffs.** If any one realm dominates the process, there will be sacrifices in the other realms. Thus, **we frame sustainable as durable over time**

Adapting to climate change provides a unique perspective related to sustainability. Most will agree that the predicament resulted from too great an emphasis on the economic realm in the past. Furthermore, there are legitimate concerns that as ecosystems endure escalating shocks and establish to new equilibriums, so too will economies.

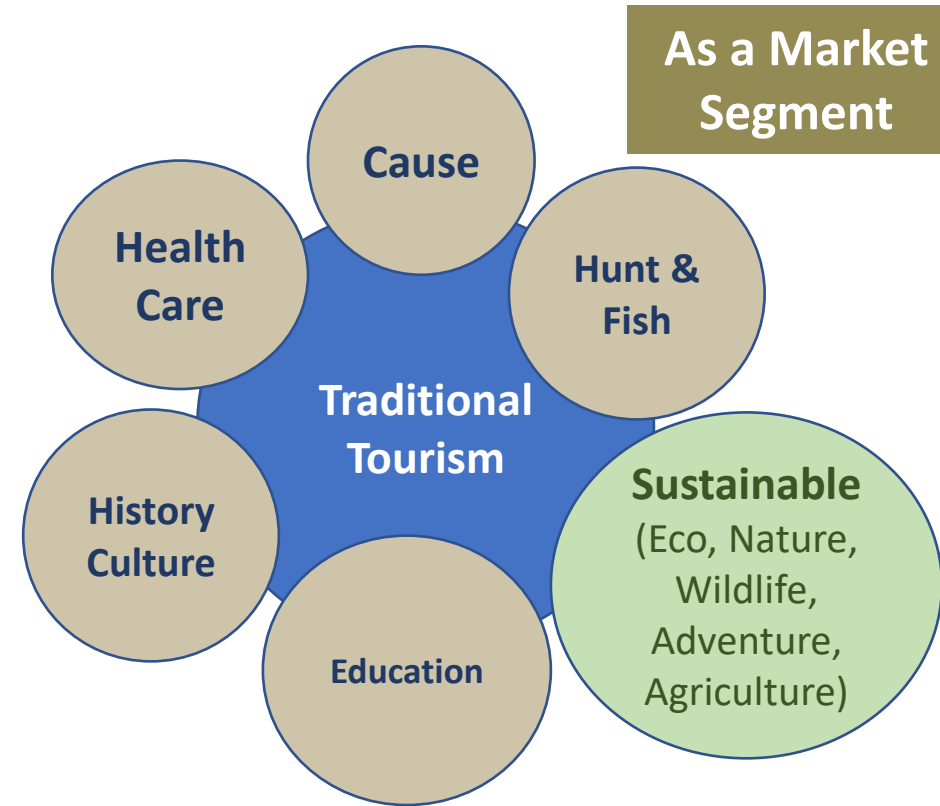
The fundamental social question will remain – with a changing climate, how will socioeconomic benefits and costs distribution change and how might cultures and community wellbeing change and endure?

Sustainable Tourism

also has different meanings

Millennials, as the up and coming generation, even larger than the Baby Boomers, seek authenticity and are committed to social responsibility and environmental sustainability. Those households with higher incomes are typically more educated and will seek out sustainable markets and business practices. They take climate change seriously and share that value with other younger upper-middle income households globally, especially those from Asia. **Steamboat Springs has a natural alignment with this group, which will come to dominate in the future.** Sustainable tourism can be jointly pursued with other adaptation initiatives and will increasingly become the new norm, replacing traditional tourism.

It will be very important to see sustainability in action.



As a Core Value(s)

- To preserve for future generations
- To achieve net zero
- To promote worker fairness
- To ensure long term economic viability

Technology offers opportunities across the board

Next 10 years:

- Biotech and Human Augmentation
- Digital SMAC (Social, Mobile, Analytics, Cloud)
- Apps, Apps, and more Apps
- 5G and Broadband Access
- Artificial Intelligence (AI) products
- Automation across the board - including driving

And Beyond:

- More sensors, monitors, automation, analytics, AI, process mapping, simulation, etc., etc.
- Virtual experiences
- Adaptation through bio-engineering
- Cleaner energy

Think about where we were a decade ago, the need for technology given climate and other changes, and the increasing pace of technological development.

Possible Technology impacts in the local tourism industry

- Improved customer experience
- Hyper target marketing
- Detailed knowledge of visitor points of origination and spending tendencies
- Mapping of customer engagement and activities
- Sentiment analysis

- ❑ Flexible and shared workforce
- ❑ Shared housing and transportation
- ❑ Automation and business re-engineering
- ❑ Dynamic pricing
- ❑ Improved sourcing
- ❑ Enhanced customer encounters

- ❖ Recreation asset monitoring & maintenance
- ❖ Ecosystem and wildlife management
- ❖ Elevated risk warnings
- ❖ Improved safety
- ❖ More productive resource utilization and efficiencies

- ✓ Enhanced learning
- ✓ Improved collaboration and community involvement
- ✓ Better descriptive and prescriptive information
- ✓ New usage fee capabilities
- ✓ More sustainable community and industry

Moving Forward

- 1. Adopt a vision for climate adaptation as an industry and community priority***
- 2. Identify and fund a destination management entity***
- 3. Pursue greatest opportunity related to tourist marketing and the mitigate greatest threat related to wildfire***
- 4. Pick three additional strategic actions to implement with community champions (see Summit's Specific Strategic Actions below)***
- 5. Identify and develop key collaborative partnerships, particularly with public land managers, which hold most of the area's recreation assets.***

Possible Strategic Partners

- Steamboat Springs Chamber of Commerce
- Steamboat Springs Ski Area
- City of Steamboat Springs and Routt County
- Yampa River – Friends, Fund, Upper Yampa Conservation
- Colorado Parks & Wildlife
- Colorado State Forest Service
- US Forest Service & Bureau of Land Management
- Colorado Office of Tourism
- Community Agricultural Alliance and Colorado Cattleman's Agricultural Land Trust
- The Nature Conservancy, Colorado
- Routt Recreation Roundtable
- Routt County Wildfire Mitigation Council
- Airlines
- Shared economy entities like Airbnb and Uber as well as app-based companies like AllTrails, Strava, TrailForks, TrailRun/Hiking/MTBProject and even major companies like Google

Summit's Specific Strategic Actions

Interviews and research efforts uncovered many different experiences, efforts, thoughts and suggestions. The interviews and research led to the development, by Summit Economics and the Steamboat Springs' working group, of more than fifty potential strategies that could be considered for Steamboat Springs.

Some of the strategies have the potential to result in significant change, while others might make incremental improvements in Steamboat Springs's effort to adapt the business environment to climate change.

Some effort will be needed to discuss, evaluate, rank, and select which strategies should be pursued and by whom.

A process, outlined in more detail in the appendices, was used to rate each strategy, in 9 different categories measuring their potential impact. There were three categories in each of the following areas:

- Impact Potential on Business Adaptation to Climate Change
- Risk Mitigation or Opportunity/Market Potential
- Impact on Sustainable Tourism (likelihood of success and size of impact)

The top 5 strategies are listed on the next page, with the complete list found in the appendices.

Key Areas of Strategic Actions

The potential actions can be classified in a variety of ways. Below are eight groupings with examples of strategies

Physical environmental mitigations, enhancements, modifications

- Wetlands, high altitude vegetation, water temperatures, riparian restoration, wildfire mitigation, land use conflicts.

Destination Management

- Manage visitor traffic, behavior, crowding, environmental impacts. Monitor and assess risks on an ongoing basis. Monitor visitor demographics and sentiment.

Quality of Life for Residents

- Assure worker and resident amenities, living standards, support systems. Assess interaction between worker engagement and business success.

Resident and Business Community Engagement & Collaboration

- Address conflicting visions, prioritize and act on community efforts, develop risk assessments.
- Information, virtual visits and experiences; business attractiveness for technology-dependent employers; coordinate strategies between farmers, ranchers, businesses and residents

Visitor Experience and Marketing

- Add or modify activity and product offerings, new and returning visitor experience programs, enhance branding, image creation. Develop business green or environmental certification programs, including adaptation.

Educational Sector Development

- Attract nationally or internationally known research institutes, non-profits, or educational entities focused on environment and business. the Davos of “Business Adaptation to Environmental Change”

Technological Adaption

- Enhance the Steamboat Springs’ visitor website to provide real-time interactive information, virtual visits and experiences, business attractiveness for technology dependent employers

Financing and Incentives

- Create a wildfire mitigation incentive or tax, work with insurance companies to reduce rates through rebates for mitigation efforts, consider different property tax rates to incentivize mitigation.

Top 5 Recommended Strategic Actions

Action	Rationale
Create sustainability and adaptation certification program-for businesses certification program for businesses so companies can report their efforts to customers and other stakeholders.	Stakeholders, including investors, customers, suppliers, employees and the general community value these types of programs, increasing revenue and reducing expenses. The younger investment community is valuing both plastic use reduction and climate mitigation more highly than any other factor in their investment activities.
Support Yampa River Fund, Friends of the Yampa, and the Upper Yampa Conservancy District, to ensure adequate flows and appropriate temperatures in the Yampa.	Maintains riparian ecosystem health, healthy fish stocks and accommodates water recreation.
Use cost/benefit or resource depletion/maintenance model to calculate and focus dollars where have most positive and/or least negative impacts	For example, is there an optimal length of stay among visitors and type of activity engagement as well as movement modality that results in lower impacts on infrastructure and outdoor assets. Classic resource allocation model.
Engage businesses and customers in etiquette education to protect the outdoors	The more the message is repeated, the more likely behavior modification will occur.
Layer tourism activities to include health, enlightenment, education, service to others and the environment, causes, heritage, and culture.	Consistent with market trends. Outdoor recreation and scenic beauty are a given. Enhance the overall experience. Experiences take products or services to a higher level as they are designed with the aim of emotionally involving customers. (Pine & Gilmore 1999) Meaningful experiences occur as a consequence of confronting, experiencing, or recreating situations that transform the subject. This is a main motivator in outdoor recreation tourism.

Pick actions with a Champion and with a high probability of success in a reasonable amount of time (less than 2 years).

Consider other actions. These are the top 5 as rated by Summit Economics. Everyone is likely to have additional ideas and ratings of top actions. That should be encouraged. The process used by Summit Economics is in the appendix and can be replicated.



For more information, please visit www.SummitEconomics.com, or email tom@SummitEconomics.com

