SECTION 6

SCORP
PRIORITY RECREATION ISSUES AND INFLUENCES

6.0 Priority Recreation Issues and Influences

This section provides an overview of the most significant issues and influences affecting outdoor recreation in Colorado and describes the process the SCORP Steering Committee followed in making this determination. The issues identified by the Steering Committee provide a framework for statewide goals, objectives, and supporting actions incorporated within the SCORP Strategic Plan (Section 7.0).

6.1 Methodology

Early in the planning process the SCORP Steering Committee (Steering Committee) identified a wide range of issues and influences directly affecting outdoor recreation in Colorado. During a brainstorming session at the first committee meeting held in May 2007, in Denver, Colorado, the Steering Committee identified the following list of current issues and influences:

- Air pollution
- Building relationships with political leaders
- Changing demographics (aging of baby boomers, Hispanic population growth, etc.)
- Changing methods of transportation, types of vehicles, and variable gas prices
- Climate change
- Funding shortfalls for land managers
- Forest health
- Getting kids into the outdoors
- Increasing public/private partnerships
- Increased use and awareness of scenic byways
- Increased reliance on volunteers due to funding shortfalls
- Increasing ethnic diversity and participation
- Increasing fuel costs
- Insect infestations
- Integration of recreation with all other market segments (health, tourism, etc.)
- Invasive species (weeds, tamarisk, aquatic nuisance species, etc.)
- Land use planning
- Need to integrate/elevate the relevance of recreation planning within the context of other planning efforts (transportation, education, etc.)
- New emphasis on using renewable energy and impact of carbon footprint
- Light pollution
- Oil, gas, and mineral exploration
- Population growth
- Public education and awareness
- Environmental literacy
- Recreation management agency niches
- Second home ownership
- Soundscapes (preserving quiet places on land and water)
- Sustaining recreation settings and experiences
- Transportation congestion
- Water availability and quality
- Wildfire (occurrence and suppression)

Following the initial brainstorming session, the Steering Committee emphasized the need for identifying groups or agencies that may possibly assist in implementing recommendations included in the updated SCORP. In addition, the Steering Committee suggested that recommendations be prioritized and structured in a format suitable for measuring potential outcomes or "benchmarks for success."

At the second SCORP Steering Committee meeting held in Frisco, Colorado in September 2007, members were divided into three small groups to prioritize the issues affecting outdoor recreation that were identified in the first planning session. Issues ranged from the pressures of population growth to the challenges posed by insufficient funding for local, state, and federal agencies managing recreation. Environmental conditions and changes were also prominent, as were concerns about declining youth participation in outdoor recreation. Certain issues, such as climate change and forest health, were cited by multiple groups as issues of high importance. Based on outcomes of small group discussions, the following five issue groups were identified as the highest priorities:

- Issue #1: Effects of **Environmental Change** on Recreation and Tourism.
- Issue #2: **Population and Demographic Change** and Related Recreation-Tourism Market Demands
- Issue #3: **Connection Between Public Health and Recreation**
- Issue #4: **Funding Shortfalls** for Recreation Management
- Issue #5: **Improved Integration of Outdoor Recreation Interests and Needs** in land use and other relevant planning efforts

A brief summary of these five issues are provided in Table 79, followed by a more detailed discussion of each issue.

Table 79: *Summary of Issues and Influences Affecting Outdoor Recreation*

Issue	Summary Description
Issue #1: Effects of **Environmental Change** on Recreation and Tourism	Virtually all of Colorado's outdoor recreation opportunities are directly tied to the natural environment. While the natural environment is in a constant state of flux, recent scientific evidence points to potential significant changes in environmental conditions due to climate change and other factors influenced by human activities. With increased public awareness of issues such as climate change, drought, forest health (e.g., bark beetle infestations), and invasive species, there is broad appreciation and heightened public concern about potential environmental change and subsequent impacts to recreation and tourism.
Issue #2: **Population and Demographic Change** and Related Recreation-Tourism Market Demands	Changing demographic trends in Colorado are having a direct impact on recreation and tourism. Continued population growth will continue to place additional pressure on recreation and tourism attractions, existing recreational facilities, and the setting character of public open lands. Secondly, the growth of Colorado's diverse recreation-tourism markets and heightened demand for leisure opportunities places additional pressures on public land managing agencies and the resources they oversee. In addition, the changing composition of the population in terms of age, ethnicity, and other demographic characteristics further impacts preferences and demands for recreation and tourism. An understanding of these demographic and market shifts, population trends, and changing leisure trends is essential to adequately address outdoor recreation and tourism needs in the future.
Issue #3: **Connection Between Public Health and Recreation**	Physical activity and spending time in nature are essential to the health and well-being of Coloradans. Physically active people have a lower risk of heart disease, diabetes, high blood pressure, obesity, and some types of cancer. Despite the benefits of a physically active lifestyle and the vast outdoor recreation opportunities available, many Coloradans, particularly youth, are increasingly sedentary. As a result, childhood obesity rates have doubled in the last 20 years to 14% in 2005, and the number of youth participating in outdoor recreation activities is declining. Children spending little time outdoors have also resulted in the prevalence of "nature deficit disorder": the physical, psychological, and social repercussions associated with not spending time in nature. While Coloradans, in general, are still considered the least obese people in the U.S. and are slightly more active than residents in other states, the number of overweight Coloradans continues to rise.
Issue #4: **Funding Shortfalls** for Recreation Management	Stagnant or declining funding has directly affected the ability of many local governments, state, and federal agencies to address recreation management needs and meet increasing statewide recreation demands. A slowing economy, increased fuel costs, higher priorities for funding (e.g., transportation, health, and education), and stagnant or declining tax revenues are just a few of the factors that have contributed to recent funding shortfalls. Strategic partnerships and increased or additional revenue sources are necessary to provide adequate funding for capital construction as well as management and maintenance of existing facilities and infrastructure.
Issue #5: Improved integration of **outdoor recreation interests and needs** in land use and other relevant planning efforts.	Many land use planning decisions have a direct effect on outdoor recreational use, particularly on the availability of and access to various recreation opportunities in Colorado. Better coordination of outdoor recreation interests within the context of local, regional, and statewide land use, transportation, and other relevant planning efforts will ensure that recreation needs are adequately addressed in the future. Ultimately, by proactively planning for recreation on a variety of levels and elevating the importance and relevance of recreation in planning discussions, recreation interests and the citizens of Colorado can help facilitate the development of communities that support active lifestyles with an abundance of parks, trails, and open space.

The following sections outline these issues and influences in greater detail and, in some instances, identify suggested sources for further information. Many issues are broad in scope (such as climate change), but remain important considerations in planning for Colorado's outdoor recreation future.

6.2 Environmental Change

Virtually all of Colorado's outdoor recreation opportunities are directly tied to the natural environment. While the natural environment is in a constant state of flux, recent scientific evidence points to potentially significant changes in environmental conditions due to climate change and other factors influenced by human activities. With increased public awareness of issues such as climate change, drought, forest health (e.g., bark beetle infestations), and invasive species of plants and animals, there is broad appreciation and heightened public concern related to potential environmental change and subsequent impacts to recreation.

The concept of environmental change is broad and far-reaching. For the purposes of the 2008 SCORP, Steering Committee members focused on those components of environmental change deemed most pressing to current outdoor recreation interests. These included climate change; water resources; forest health; fire management; and invasive species (including zebra mussels and invasive plant species such as tamarisk and Eurasian watermilfoil). The 2007 Local Government Survey, conducted as part of the 2008 SCORP, also pointed to concerns among local government with natural resource and recreation management. For example, agency respondents identified the "monitoring and maintaining of natural resource conditions" as one of their ten most important management issues.

6.2.1 Climate Change

Climate change will have profound consequences for Colorado's outdoor environment in the 21st century. Empirical data clearly suggests that climate change is occurring—11 of the past 12 years (as of 2007) were the warmest on record worldwide since 1850.[1] Between 1908 – 2007, Colorado's average daily temperature warmed just over 3°F. Every five-year period since 1978 has been warmer than the 1901-2000 average.[2] Keys to effectively dealing with this issue include: 1) minimizing our contribution to climate change and 2) preparing for the impacts we already know will occur.

Such changes may directly affect outdoor recreation in Colorado, particularly as warming temperatures likely result in declining snowpack and earlier run-off cycles, affect water resources, increase the occurrences and intensity of wildfires because of hotter and drier conditions, affect insect infestations that will impact forest health, and reduce wildlife habitat and species diversity.[3] These impacts, and their associated effect to the natural environment, are inherently intertwined with outdoor recreation and tourism. In addition, other indirect impacts from climate change may have an effect on recreation and tourism providers. For example, higher capital costs may be incurred with developing recreation infrastructure in a sustainable manner that reduces energy consumption and carbon emissions.[4]

[1]Myklebust, E. Colorado's Water Future. Colorado State Parks. 2008. 1-3.
[2]Easley, T. Climate Change in Colorado and the West. Rocky Mountain Climate Organization, 2008.
[3]Ibid.
[4]As of 2008, Colorado has become host to a variety of initiatives and projects intended to reduce energy consumption, develop alternative fuel sources, and mitigate the state's contribution to the emission of climate changing greenhouse gases.

Governor's Energy Office

In April 2007, Governor Bill Ritter signed Executive Orders D0010 07, D0011 07, and D0012 07 requiring state departments, agencies, and offices to take a position of leadership in the new energy economy. DC 0010 07 specifically re-created the Governor's Office of Energy Management and Conservation (OEMC) as the Governor's Energy Office (GEO) for the purpose of "Greening State Government." The mission of the GEO is to "lead Colorado to a New Energy Economy by advancing energy efficiency, renewable and clean energy resources." The GEO works with communities, utilities, private and public organizations, and individuals to promote renewable energy such as wind, solar, and geothermal, and energy efficiency technologies in commercial and residential buildings.[5] Specific state government performance targets outlined in the Governor's Executive Orders and legislation include:

- By fiscal year 2011-2012, achieve at least a 20% reduction in energy consumption of state facilities below fiscal year 2005-2006 levels
- By January 2008 develop or update an energy management plan and ensure development of a study determining feasibility of energy performance contracting for all state owned facilities
- Design and construct facilities to achieve LEED silver certification to the extent it is cost-effective as a choice in design, construction and renovation
- Initiate energy performance contracts where opportunity exists to better utilize utility and operating budgets and to make capital improvements in facilities.

Implications of the Governor's Executive Orders to recreation relate most directly to future capital improvements and investments, which will need to be designed in the future to be more sustainable, improve energy performance, and obtain long-term reductions in energy consumption (and costs). State agencies, like Colorado State Parks, have developed energy management plans that seek to balance the stewardship of park resources with cost-effective, sustainable operations.

Colorado Renewable Portfolio Standards

Voters passed Amendment 37 in 2004, requiring that the state's largest utilities get 10% of their energy from renewable sources by 2015. In March 2007, Governor Ritter signed House Bill 1281, doubling the renewable energy standards established in 2004. Under the new standards, large investor-owned utilities such as Xcel must provide 20% of their electricity from renewable sources such as wind and solar by 2020. Municipal utilities and rural electric providers must achieve a renewable energy goal of 10% by 2020.

[5]Governor's Energy Office. "Who is the GEO?" 3 Mar. 2008. http:www.colorado.gov/energy/about/index.asp
[6]News Release: Hickenlooper, Others Launch Colorado Climate Project. 17 Jan. 2008. http://www.rockymountainclimate.org/colorado_launch_1.htm

Colorado Climate Project

Modeled after similar efforts in other states, the Colorado Climate Project was launched in August 2006 by the Rocky Mountain Climate Organization (RMCO). As part of the Colorado Climate Project, a blue ribbon panel comprised of public and private leaders was convened (Colorado Climate Action Panel) to make recommendations to the Governor on reducing Colorado's contribution and vulnerability to climate change. After 10 months of work, the panel returned in September 2007 with 70 recommendations to be forwarded onto state and local government for action including the following:[7]

- A recommendation that the governor establish a goal for the reduction of greenhouse gas emissions in Colorado in the vicinity of a 20% reduction in emissions by 2020, and an 80% reduction by 2050
- A 50% strengthening of the state's renewable portfolio standards requiring that investor owned utilities get 30% of their power, and municipal and cooperative utilities 15% of theirs, from renewable energy sources
- Expansion of solid waste reduction, recycling and composting programs, to reduce emissions by an estimated 4.6 million tons in 2020
- Major expansions of utility "demand side management" programs to reduce electricity and natural gas consumption by their customers
- Adoption of California's motor vehicle emission standards for new cars and trucks
- Reductions in emissions of methane for oil and gas operations.

"Water is the true worth of a dry land."

-Wallace Stegner

6.2.2 Water Resources

The availability of water in streams and reservoirs has a major impact upon water-based recreation such as boating and fishing, as well as land-based recreation like skiing and golfing (which rely on water for snowmaking and irrigation). Direct influences on water availability include a warming climate, a growing population, and frequent droughts. Any decreases in available water as a result of rising temperatures and future drought will likely be amplified by continued population growth and rising demand. In addition, the population is projected to continue growing through the year 2030 at an average annual rate of 1.7%. By 2030, the population is expected to reach 7.1 million, a 67% increase over the state's 2000 population of 4.3 million.[8]

RMCO reports that United States Geological Survey data shows that for 72 Colorado sites, spring run-off has advanced an average of two weeks since 1980. This can lead to water shortages in late summer when consumer demand is high and aquatic and riparian habitats are vulnerable.

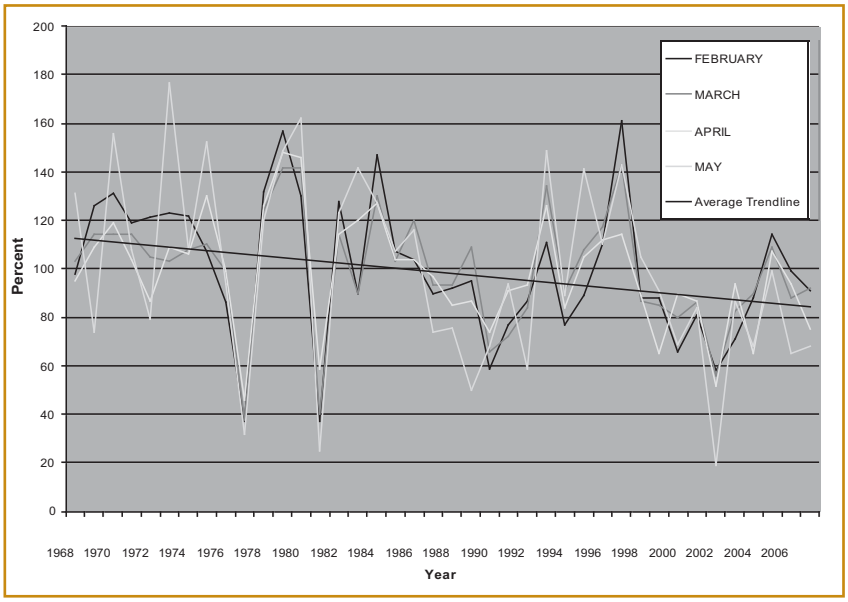
[7]Climate Action Panel Recommendations: Cut Emissions, Save Money. 7 Feb. 2008. http://www.coloradoclimate.org/ewebeditpro/items/O14F13589.pdf
[8]**Westkott, J.** Population Change in Colorado's River Basins: a Brief History From 1950 to 2000 and Forecasts From 2000 to 2030. Colorado Water Conservation Board. 2004.

Changing Snowpack and Run-off

Streamflows and reservoir water levels are directly linked to annual snowfall. As warming trends continue, snowpack conditions throughout the West can be expected to shrink. A 2005 study of the upper basins of the Columbia River, Missouri River, Colorado River, and Rio Grande found that 2000 through 2004 was the hottest period in each basin in the past 110 years. Regional climate models predict temperature increases of 4°F to 13°F in the West by the end of the 21st century. Rising temperatures would likely result in more winter precipitation falling as rain instead of snow. Additionally, increased temperatures earlier in the year would result in snowpack melt and runoff occurring earlier in the spring.[9]

Between 1968 and 2007, statewide snowpack levels have decreased from about 112% of average to about 85% of average during the months of February through May (Figure 49). Snowpack levels in the Colorado River Basin have been below average for 11 of the past 16 years. Losses of 24% of the Colorado River Basin snowpack are anticipated between 2021 and 2039, and 30% by 2040-2069.[10] Diminished snowpack, as a result of less snowfall and earlier snow melt, creates a negative feedback loop. The reduction in mountain snow cover will result in less reflection and more local absorption of the sun's heat. The enhanced warming effect of increased absorption will make less common the conditions necessary for snowfall and snowpack accumulation.[11]

Figure 49. ***Historical Statewide Percentages of Average Snowpack (Feb. – May)***



Natural Resource Conservation Service, 2008

Shorter Ski Seasons... Eventually

A study by the City of Aspen projects a ski season 1 ½ weeks shorter by 2030, 4-10 weeks shorter by 2100, and no snow at the base of Aspen Mountain by 2100.

In the short-term, according to the Rocky Mountain Climate Organization, low elevation ski areas are especially vulnerable. As a result, Colorado's high elevation ski resorts and snowsports areas may actually have an initial increase in visitation.

[9]Saunders, S., and M. Maxwell. Less Snow, Less Water: Climate Disruption in the West. Rocky Mountain Climate Organization. 2005.
[10]Ibid.
[11]Saunders, S., and M. Maxwell. Less Snow, Less Water: Climate Disruption in the West. Rocky Mountain Climate Organization. 2005.

If these trends continue, the season for skiing, snowboarding, and other snow sports would likely decrease. Additionally, snow sport enthusiasts can likely anticipate "slushier" snow conditions earlier in the season. Boaters and anglers also could be affected by falling reservoir levels and reduced streamflows in Colorado's rivers and streams. These changes present tremendous challenges to recreation providers, and could have a dramatic impact on business revenues and local economies dependant on snow sport tourism, boating, and fishing.[12]

6.2.3 Forest Health

Colorado is host to over 22.5 million acres of forest land managed by federal, state, and local authorities. Whether mountain biking through an aspen grove, fishing a mountain stream, or skiing within national forest, many of Colorado's most popular recreation destinations are directly tied to the conditions of the surrounding forests.

Forest health was a significant issue in the 2003 SCORP and is increasingly so in 2008. The health of Colorado's forest land is dependent upon a wide range of factors, including tree diversity, timber harvesting, and fire management. Periodic fires, beetle outbreaks, and disease have historically helped contribute to forest diversity and resilience. However, as a result of fire suppression, many of Colorado's forests have experienced little disturbance in recent years, leaving large stands of relatively even-aged forests that are susceptible to widespread beetle infestations. The large numbers of dead, dry trees catch fire more easily, provide additional fuel for a forest fire, and potentially burn hotter than forests having more dispersed-aged stands of timber that are more resilient to beetle infestations. Additionally, the loss of trees in such significant numbers has subsequent effects on wind reduction and soil erosion.

Bark Beetles and Forest Diseases

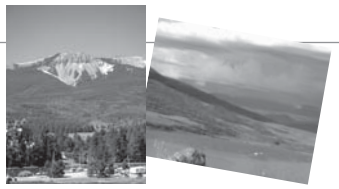
Mountain Pine Beetle

Mountain pine beetle attacks lodgepole, ponderosa, white bark, limber, and white pine trees. The beetle prefers to strike mature trees, typically those 80 years of age or older. Once attacked, a tree's needles will usually stay green for 8 to 10 months before turning red or reddish-brown.

The effects of the mountain pine beetle outbreak in Colorado forests have captured significant attention in recent years. Mountain pine beetles are not new to Colorado's forests, and outbreaks have typically occurred every 10 to 30 years. However, the most recent outbreak represents the largest in Colorado's recorded history.

According to the Colorado State Forest Service, about 980,000 acres of forest (primarily comprised of lodgepole pine, ponderosa, and limber pines) have been affected by the mountain pine beetle.[13] Map 13 depicts the distribution of all bark beetle infestations and changes between 1994 and 2007.

[12]Westkott, J. Population Change in Colorado'S River Basins: a Brief History From 1950 to 2000 and Forecasts From 2000 to 2030. Colorado Water Conservation Board. 2004.



The current outbreak has its roots in the mid 1990s but their impact has been exacerbated by drought conditions from 2000 to 2004 that facilitated the expansion of beetle populations. Recent warming trends may also be playing a role in the spread of the beetle. Mountain pine beetles have typically not been able to survive the cold temperatures found above 9,500 feet. However, during the current outbreak, mountain pine beetle has been observed at higher elevations. Currently, Grand, Routt, Summit, Eagle, and Jackson counties are the most affected, although Front Range forests are in the midst of a slower-growing beetle epidemic.[14]

Spruce Beetle

Spruce beetles primarily affect higher elevation spruce forests. According to Colorado State Forest Service estimates, roughly 97,700 acres of spruce forest were infested by spruce beetle in Colorado in 2007. To date, spruce beetle infestations are generally smaller in acreage and have been relatively confined to a handful of counties in the northwest and southwest portions of the state. Warmer temperatures in recent years have changed the beetle's life cycle from two years to one. As a result, the spruce beetle has been able to spread more quickly.

While not as profuse as the mountain pine beetle, the gradual spread of the spruce beetle in recent years indicates that it may be the next large insect epidemic to transform our forests. Resort economies are particularly threatened by the spruce beetle because many of Colorado's ski areas are situated within higher-elevation spruce forests.

Aspen Decline

Colorado has more aspen than any other western state. The allure of golden aspens transforming the mountains in the fall generates millions of tourist dollars. An unexplained decline of aspen trees in western Colorado has puzzled experts for the past two years. The Colorado State Forest Service observed about 334,000 acres in decline in 2007. Typical causes such as livestock grazing and conifer encroachment have been ruled out. Researchers are currently investigating other potential factors in aspen decline, including different causal agents in different areas, including decay fungi and aspen bark beetles.

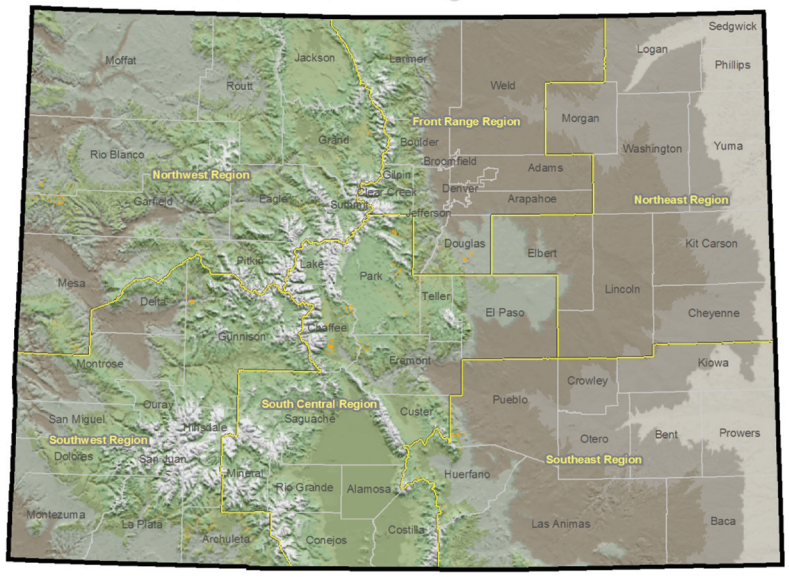
Other Declines and Infestations

As of 2007, subalpine fir declines have been documented on more than 350,000 acres. The decline is likely attributed to a number of causes including western balsam bark beetle and root diseases. The decline is dispersed throughout high-elevation forests in Colorado.[15]

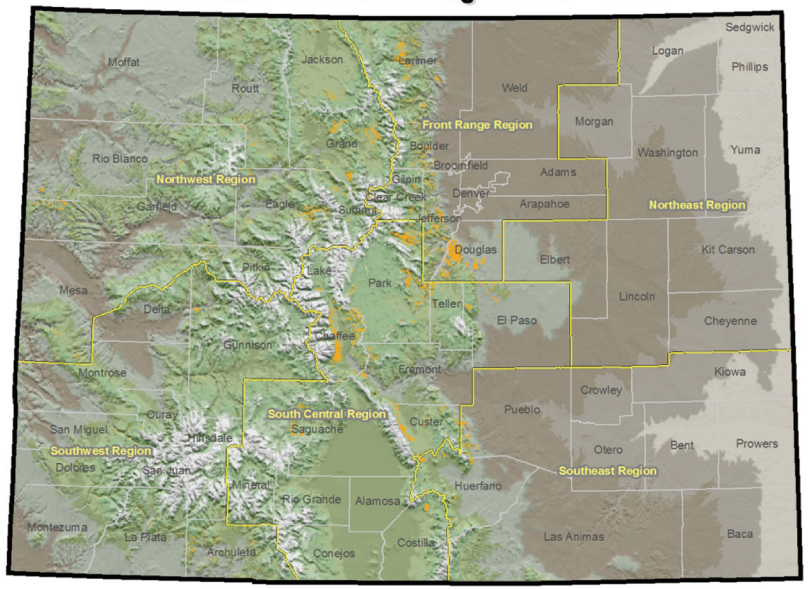
[13]"Colorado's Primary Forest Insect and Diseases in 2007." Colorado State Forest. Jan. 2008. 10 March 2008 <http://csfs.colostate.edu/library/pdfs/iandd/2007_StateOverview_I&D.pdf>.
[14]Foster, K., and Twitchell, J. Northwest Colorado Forest Health Guide. U.S. Forest Service & Colorado State Forest Service. 2007.
[15]2007 Report on the Health of Colorado's Forests, Colorado State Forest Service, <http://csfs.colostate.edu/takingcare.htm>

Map 13: *Bark Beetle Infestations (1994-1997)*

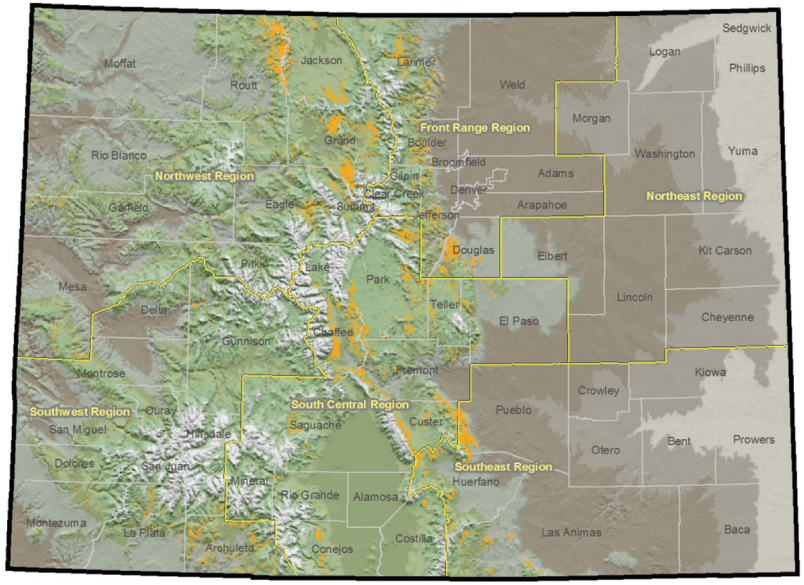
Colorado Beetle Damage 1994 - 1997



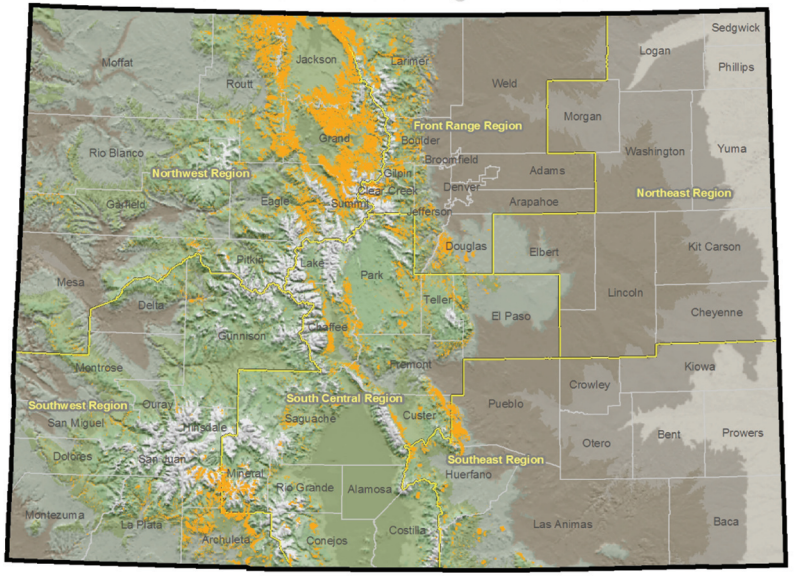
Colorado Beetle Damage 1994 - 2000



Colorado Beetle Damage 1994 - 2003



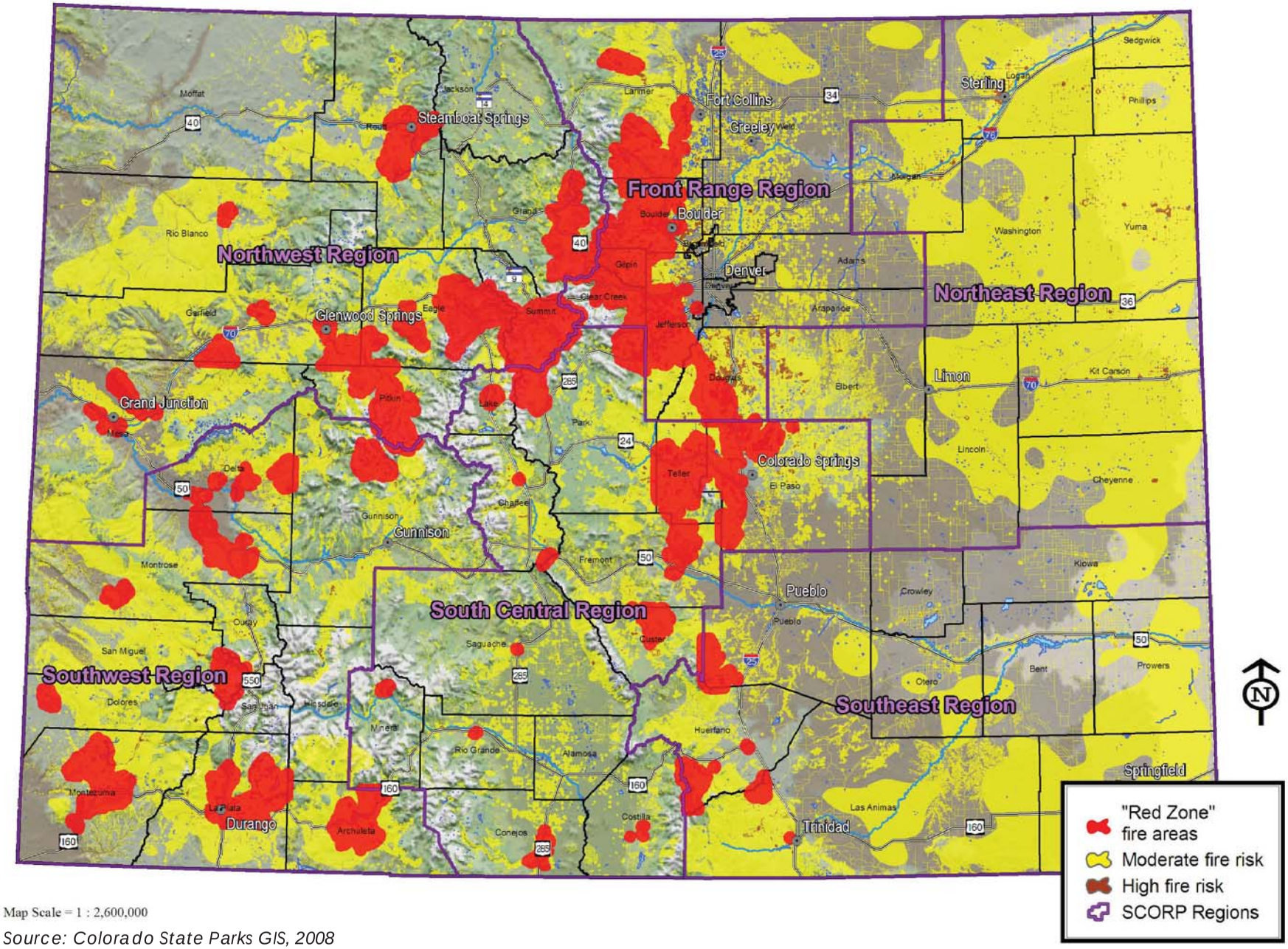
Colorado Beetle Damage 1994 - 2007



Beetle Damage Extents SCORP Regions

Source: Colorado State Parks GIS, 2008

Map 14: ***Colorado Fire Risk & "Red Zones"***



Map Scale = 1 : 2,600,000

Source: Colorado State Parks GIS, 2008

Fire Management and Fire Suppression

Wildfire is part of Colorado's natural forest system; however, fire poses major threats to people, homes, local economies, drinking water supplies, and of course, recreation. In the West, longer wildfire seasons, extreme wildfire conditions, rising numbers of large and severe wildfires already occur. Map 14 depicts fire hazard throughout the state and emphasizes "red zones" which are areas that have a high likelihood of wildfire risk and are close to communities, homes, or other structures. This strongly correlates with warming and drying trends, and will likely worsen if temperatures continue to rise. Additionally, because historical fire regimes have been disrupted, many of Colorado's forests are even more susceptible to climate change effects.

Fire suppression has historically been synonymous with fire management. In fact, forests are disturbance-driven and rely on biological change such as fires, insects, and disease for maintenance and renewal. Periodic fires or outbreaks of disease can increase diversity and resilience in the forest. Modern forest management recognizes the need for fire and other natural disturbances. Fire managers in Colorado seek to manage fire in a way that makes use of its benefits while protecting the people and property in its path.

Impacts to Recreation and Tourism

Forests are integral to recreation and tourism in Colorado. Potential impacts to recreation and tourism as a result of declining forest health include some of the following:

- A decline in hunting because of habitat loss caused by potential wildfires as well as a possible decline in herd size from lack of precipitation in the grazing areas.
- A decline in overnight camping because of fire bans (and a lack of interest in camping without campfires). In addition, public access to some areas might be restricted because of potential wildfires.
- A decline in overnight camping due to lack of forested areas providing shade and privacy in campgrounds.
- A decline in both scenic touring and park visits if forest fires impact these areas.
- Heightened safety concerns related to standing dead and sometimes fallen trees.

The 2002 Colorado drought and wildfires caused an estimated $1.7 billion loss of tourism income.

-Hotter and Drier, the West's Changed Climate – 2008 RMCO Report

Additional impacts directly resulting from wildfire include:

- Erosion and debris flows impacting water quality and water-based recreation such as boating and fishing
- Reduction in acreage open to recreation, which could increase demands on other public lands
- Burned areas may not be attractive to recreationists for decades because rehabilitation efforts are not immediately seen; trees require many years to mature
- Financial strains for local governments, state, and federal agencies. The 2002 wildfire season in Colorado required over $152 million in suppression costs alone.
- Facility closures: Many recreation facilities have been destroyed or damaged by fire, including campgrounds and trails.

[16]"Wildfire." Red Zones. Colorado State Forest Service. 11 July 2008 <http://csfs.colostate.edu/wildfire.htm>.
[17]2007 Report on the Health of Colorado's Forests, Colorado State Forest Service. 3 March 2008. <http://csfs.colostate.edu/takingcare.htm>

6.2.5 Invasive Species

Invasive species are plants, animals, and other organisms that have been accidentally or intentionally introduced into an environment from which they did not evolve and whose introduction is likely to cause economic or environmental harm. Because they have no natural enemies to limit their reproduction, they usually spread rampantly.

Recreation impacts resulting from invasive species vary. For example, some species of invasive weeds may significantly alter the vegetative composition of a given area and subsequently affect the habitat of wild game species (e.g., waterfowl, deer, or elk) by potentially outcompeting vegetative food sources that game species rely on. Other invasive species, such as aquatic invasive species (like the zebra mussel or New Zealand mud snail) often outcompete species that are important forage for native trout and other fish, and provide little nutrition to fish that eat them.

Invasive species are recognized as one of the leading threats to biodiversity and impose enormous costs to agriculture, forestry, fisheries, and other human enterprises, as well as to human health. The cost to control invasive species and the damages they inflict upon property and natural resources in the U.S. is estimated at $137 billion annually.[18]

Invasive Plants

Of the 3,000 native species of plants in Colorado, 500 (17%) have already been displaced by non-native weed vegetation.[19] The Colorado Department of Agriculture has designated 85 noxious weed species with the intent of eradicating species with isolated or limited populations, and containing and managing those invasive species that are well established and widespread. In addition, the agency is coordinating statewide efforts to prevent the introduction of new invasive plant species.

One of the most invasive plant species that pose the most significant threat to recreation in Colorado is the tamarisk.[20] Tamarisk is a riparian shrub/tree that grows in thick stands along streams and some reservoirs—making hunting and fishing difficult and lowering bird density and diversity. The shrub is a fire-adapted species with long tap roots that allow it to intercept deep water tables and interfere with natural aquatic systems and vegetation by draining water. The tamarisk also degrades or outcompetes native wildlife habitat and has little nutritional value.[21]

Aquatic Invasive Species (AIS)

An emerging aquatic invasive species is the Zebra mussel, which was found in Lake Pueblo State Park in January 2008 and is threatening to invade other areas of Colorado. Human activity is responsible for their spread; the mussels are typically transported when attached to the surfaces and bilge of boats and equipment. Microscopic life-stages of the mussel can also be transported in the bilge, engine, live well, or trailer of a boat. Since their introduction to the Great Lakes in 1986 from ships' ballast water, zebra mussels have quickly spread and are now found in at least twenty states and two Canadian Provinces. The total cost of the zebra mussel problem nationally is estimated at $3.1 billion over the next ten years.[22]

[18]Williams, Lori. "A Departmental Perspective." U.S. Department of the Interior. U.S. Fish and Wildlife Service. 21 Mar. 2008 <http://www.fws.gov/northeast/njfieldoffice/FieldNotes%20WEB%20PDF/2004_Spring_PDF/35&36_williams_DOI.pdf>.
[19]"Protect Colorado From Invasive Species." National Wildlife Federation. 17 Apr. 2008 <http://www.nwf.org/wildlife/pdfs/ColoradoInvasives.pdf>.
[20]"The Tamarisk Invasion." National Parks Service. 22 Dec. 2004. 21 Mar. 2008 <http://www.nps.gov/archive/whsa/tamarisk.htm>.
[21]"The Tamarisk Invasion." National Parks Service. 22 Dec. 2004. 21 Mar. 2008 <http://www.nps.gov/archive/whsa/tamarisk.htm>.
[22]"Case Study: Zebra Mussel." U.S. Department of State. 25 Mar. 2008 <http://www.state.gov/g/oes/ocns/inv/cs/2304.htm>.

Zebra mussels smother aquatic organisms, such as crayfish and native clams, out-compete other aquatic invertebrate species that are important forage for juvenile fish, which are in turn food for larger fish.[23] Zebra mussels may also leave sharp-edged shells along swimming beaches which can be a hazard to unprotected feet as well as cause damage to boats, boat engines, and equipment by adhering to their surfaces.

Another AIS is the Eurasian watermilfoil (EWM). Eurasian watermilfoil grows in dense mats that rapidly destroy freshwater wildlife habitat by displacing native vegetation and disrupting the food chain. Eurasian watermilfoil negatively effects water quality by altering water chemistry. It also slows the flow of water in irrigation ditches and canals. These dense mats impair all forms of water-based recreation, including boating, fishing, and swimming. Standing water created by EWM is often ideal mosquito habitat as well.

Invasive Species Costs

Besides the direct effects of invasive species such as outcompeting native vegetation and wildlife species, indirect costs or "opportunity costs" associated with containing or eliminating these species can be extensive. For example, federal, state, and local government agency budgets are negatively impacted by the need to devote valuable resources to invasive weed management efforts (e.g., extensive staff time, the purchase of chemicals and other products or equipment), particularly when those funds could be used for infrastructure improvements, land acquisition and repairs,.etc. Depending on the extent of the problem and desired management outcome (i.e., containment or eradication), it isnot uncommon for invasive species management to take up a substantial portion of an agency's budget.

Direct costs associated with combating the zebra mussel at Lake Pueblo and other state parks is significant. For example, Colorado State Parks was awarded a one million dollar grant by the Colorado Water Conservation Board (CWCB) to contain the spread of this species between Spring 2008 and June 2008. The majority of these dollars are to be spent at Lake Pueblo, with approximately $114,000 of this is set aside for statewide zebra mussel planning purposes. In addition, during the 2008 Legislative session, SB 08-226 passed, establishing a budget for State Parks' AIS response for $3.2 million for FY08-09, with an additional $2.6 million to pay for preventing the spread of zebra mussels in at-risk state parks through FY 09-10.

Following receipt of the CWCB grant in Spring 2008, boat inspections began at Lake Pueblo and were expanded later in the spring to four other parks that have been identified as high risk for transport of AIS: Navajo, Cherry Creek, Chatfield and John Martin State Parks. At each of these reservoirs, all boats (including motors, trailers, and related equipment), are subject to inspections for any non-native or exotic plant material and aquatic wildlife identified as Aquatic Invasive Species (AIS) prior to launch in to or departure from state park waters. Boats may be denied access or placed under quarantine if inspection is refused or if AIS are found on or within a boat or boating equipment.

[23]"Impacts." Protect Your Waters. 21 Mar. 2008 <http://www.protectyourwaters.com/impacts.php#a>.

The full impacts of the zebra mussel have not yet been realized. So far, the costs have been earmarked for preventative measures and do not quantify the total impact that zebra mussels may have on reservoirs managed by State Parks or other local and state recreation providers.

6.3 Population and Demographic Change

Colorado's growing population puts additional pressure on recreational facilities and lands. The changing composition of the population in terms of age, ethnicity, and other factors further results in changing preferences and demands for recreation. An understanding of recent and projected trends is essential to adequately address the ongoing needs of outdoor recreation enthusiasts.

6.3.1 Population Growth

SCORP Steering committee members identified population growth as one of the most important issues affecting recreation in Colorado. Local governments similarly are aware of the likely demands resulting from a growing population. Respondents to the 2007 Local Government Survey cited the capacity to serve a growing population among the top ten most important issues.

Population and demographic changes have a direct impact on recreation and must be factored in to future recreation planning efforts. Understanding and preparing for these trends will assist recreation providers in meeting the future needs of Colorado's Citizens.

National Trends

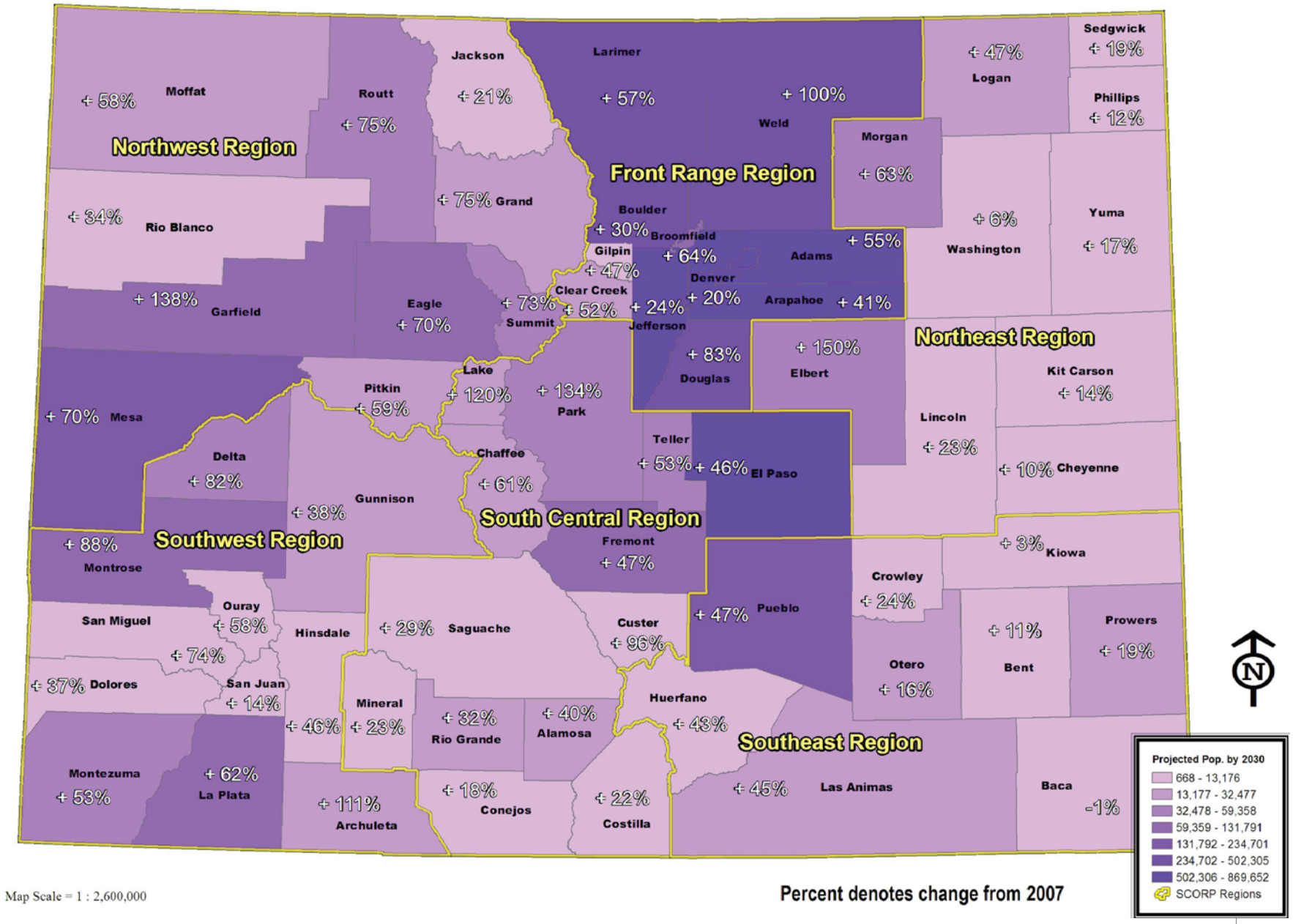
Population growth in the U.S. has fluctuated between 1.0% and 1.25% annually since about 1970. Between 1990 and 2000, the U.S. population grew approximately 13%, increasing by 32.7 million people. In 2006, the U.S. population was estimated at 299.4 million, an increase of 18 million since 2000. The population of the United States is expected to grow roughly 21% between 2006 and 2030, an increase in population of 64 million people to 363.6 million. Six of the 10 fastest growing states are located in the West: Arizona, Nevada, Idaho, Texas, Utah, and Colorado.[24]

Colorado Trends

Between 1990 and 2000, the Colorado population increased 31% or just over 3% annually. (Map 15 shows population projections between 2007 and 2030 for Colorado). Population growth has slowed, but remains higher than the national average. Since 2000, the Colorado population has averaged annual growth of about 1.75%, reaching an estimated total of 4.75 million people in 2006.[25] The Colorado State Demography Office estimates the state will reach a population of 7.3 million by 2030. This represents 54% growth over the 2005 population and an increase of nearly 2.6 million people. The Northwest is the state's fastest growing region with annual growth rates of about 3% through 2015 (Figure 50).[26] This region includes the fast-growing mountain resort communities of Eagle, Pitkin, and Summit counties as well as energy boom counties such as Garfield, Moffat, and Rio Blanco.

[24]Christie, L. "Growth States: Arizona Overtakes Nevada." Editorial. CNNMoney.Com 25 Dec. 2006.
[25]State Demography Office. Colorado Department of Local Affairs. 26 Jan. 2008 <http://www.dola.state.co.us/dlg/demog/index.html>.
[26]Ibid.

Map 15: *Colorado Projected Population (2007-2030)*



Source: Colorado State Demography Office, 2008

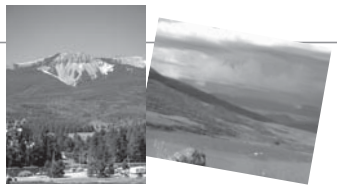
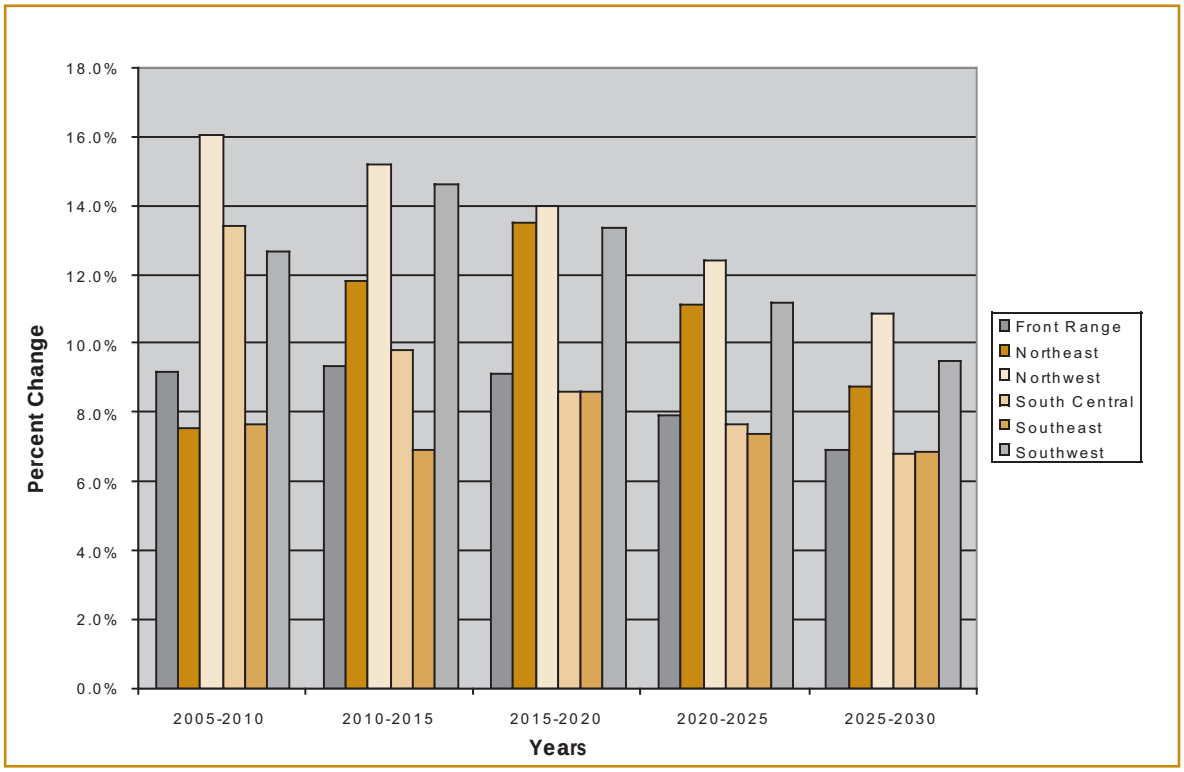
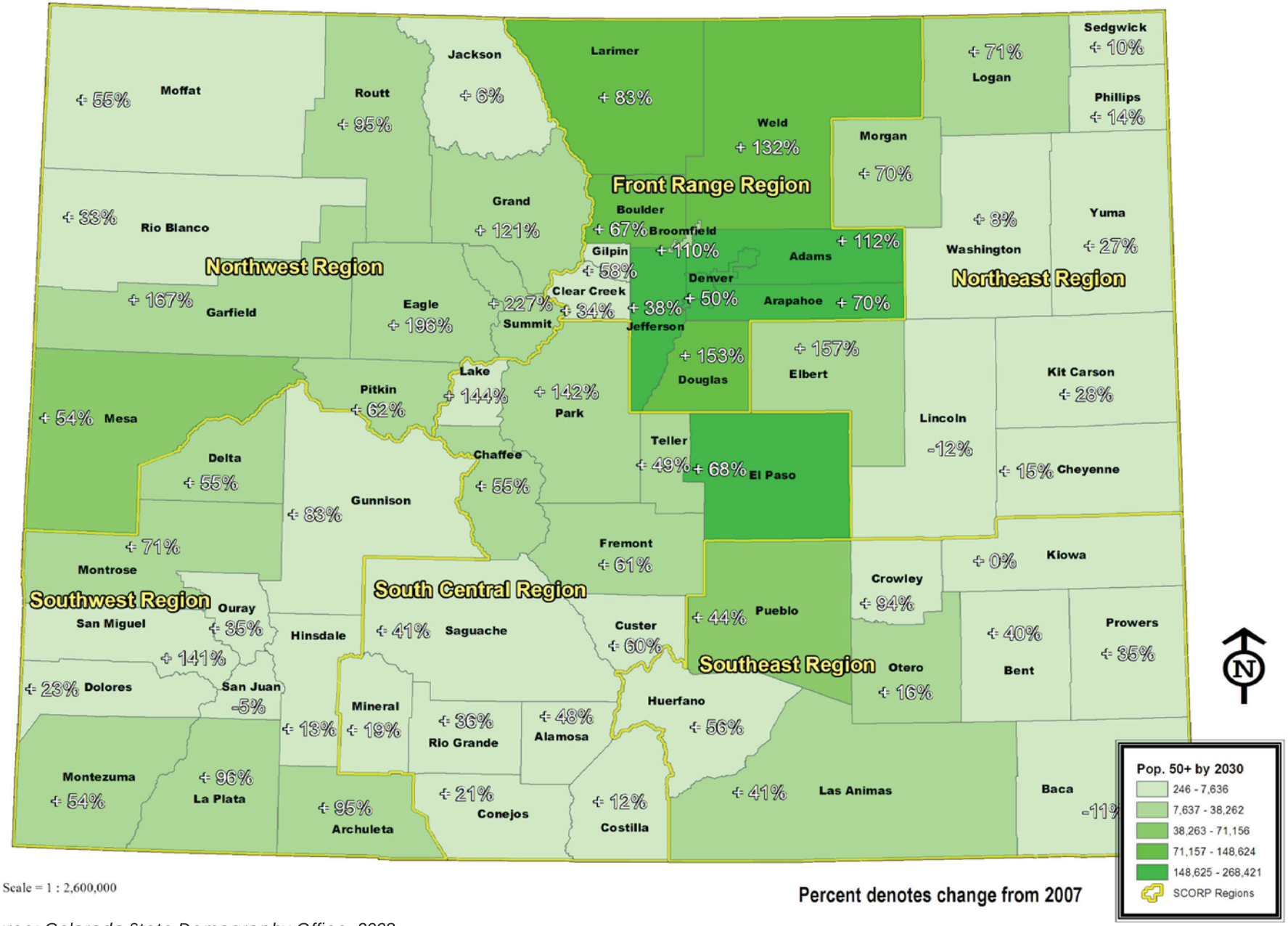


Figure 50: ***Projected Percentage Population Growth by Region (2005-2030)***



Source: Colorado State Demography Office, 2008

Map 16: *Colorado Projected Population Age 50 & Over (2030)*



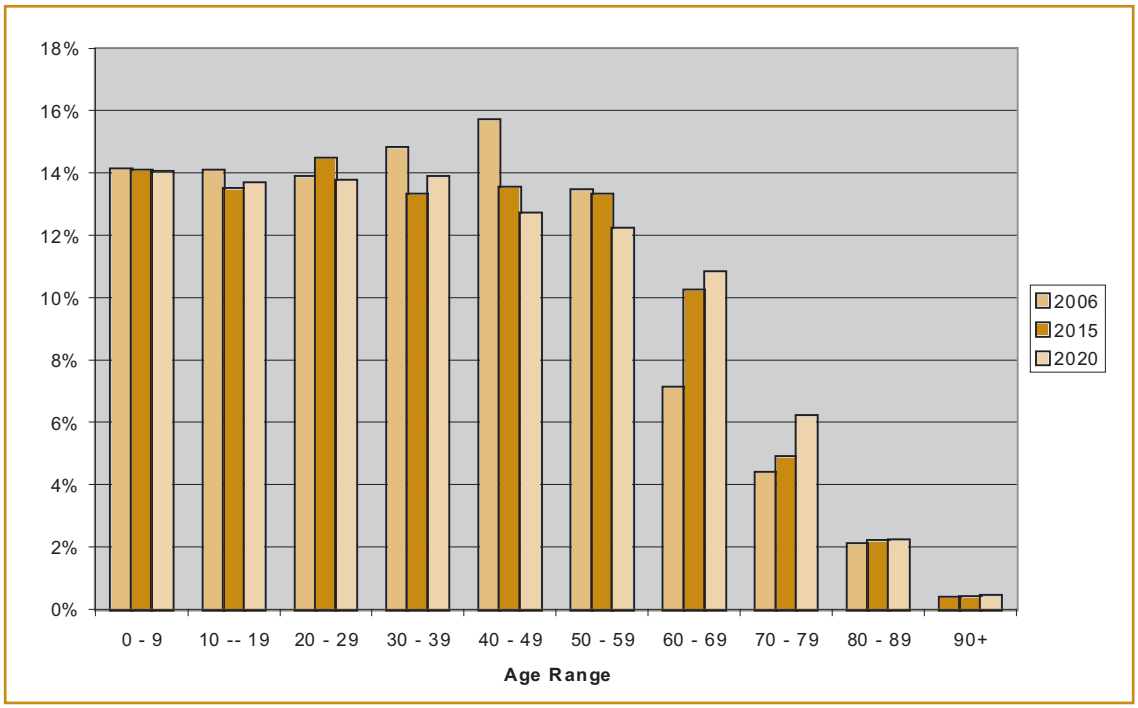
Source: Colorado State Demography Office, 2008

6.3.2 Aging of the Baby Boomers

Colorado's population is not only growing in size, but in age as well. The aging of the "baby boomer" population (born 1946 to 1964) represents a large-scale shift in Colorado's age distribution. While the aging of the population also is a national trend, significant in-migration of baby boomers has greatly amplified the baby boom demographic in Colorado. In addition, many recreational communities report that non-resident baby boomers are purchasing homes and property in Colorado with the intent of retiring here in a few years, fueling the surge in second homes in Summit, Eagle, Grand, Park, and Chaffee counties.[27]

Growth in this segment of the population will have a dramatic influence on recreation. Between 2005 and 2010, the population aged 60-79 will increase 93% and aged 80+, 41%. This compares to 28% growth for ages 0-19, 26% for ages 20-39 and 11% for ages 40-59. In 2005, those 60 years of age and over represented roughly 14% of the Colorado population. By 2015, those aged 60 and older will represent 18% and by 2020 over 20% of the population will be over 60 years of age (Figure 51).[28] With more leisure time, comparably high disposable income, and concern for health and fitness, baby boomers are expected to increase the demand for recreation services. While many plan to remain active and pursue passive recreation such as hiking, wildlife viewing, skiing, and bicycling, some recreation planners foresee potential shifts in recreational use patterns. For example, recreation that is less physically demanding may increase (e.g., off-highway vehicle use and scenic driving) along with recreation activities that provide higher levels of comfort (e.g., camping in cabins or RVs).[29]

Figure 51: ***The Aging of Colorado's Baby Boomer Population (2006 – 2020)***



Source: Colorado State Demography Office, 2008

[27]F. Cason. "Colorado's Changing Demography." (2005). 17 Mar. 2008 <http://www.du.edu/economicpanel/article/eight_051005.html>.
[28]State Demography Office. Colorado Department of Local Affairs. 26 Jan. 2008 <http://www.dola.state.co.us/dlg/demog/index.html>.
[29]SCORP Steering Committee Meeting #2. Meeting Minutes. 16 May 2007, Denver Museum of Natural History

6.3.3 Millennials

In addition to Baby Boomers, another generation influencing recreation in Colorado is the "millennial" generation (born 1978 – 2003). In 1998, the millennial generation was the first generation to show a decrease in the percentage of participants in sporting activities.[30] According to Richard Louv, Author of "*Last Child in the Woods: Saving Children from Nature Deficit Disorder*," Millenials were much less likely to experience unstructured outdoor play and are increasingly disconnected from the outdoors. This has affected the type and extent of recreation that millenials participate in. According to the Outdoor Industry Association, this generation pursues activities compiled from different and often incongruent cultures: from machine-powered sports like moto-cross and wakeboarding to human powered activities like bouldering and snowboarding; activities that fall more closely within the traditional boundaries of outdoor sports. Millennials respond to activities that are "accessible"— those that are visually in the media and practical in terms of how much time the activity requires.[31] Millennials are also more technologically sophisticated than past generations. As a result, park and recreation planners are pondering ways to integrate technology into how they communicate with this generation.

> *Teaching children about our natural world should be treated as one of the most important events of their lives.*
>
> *—Thomas Berry*

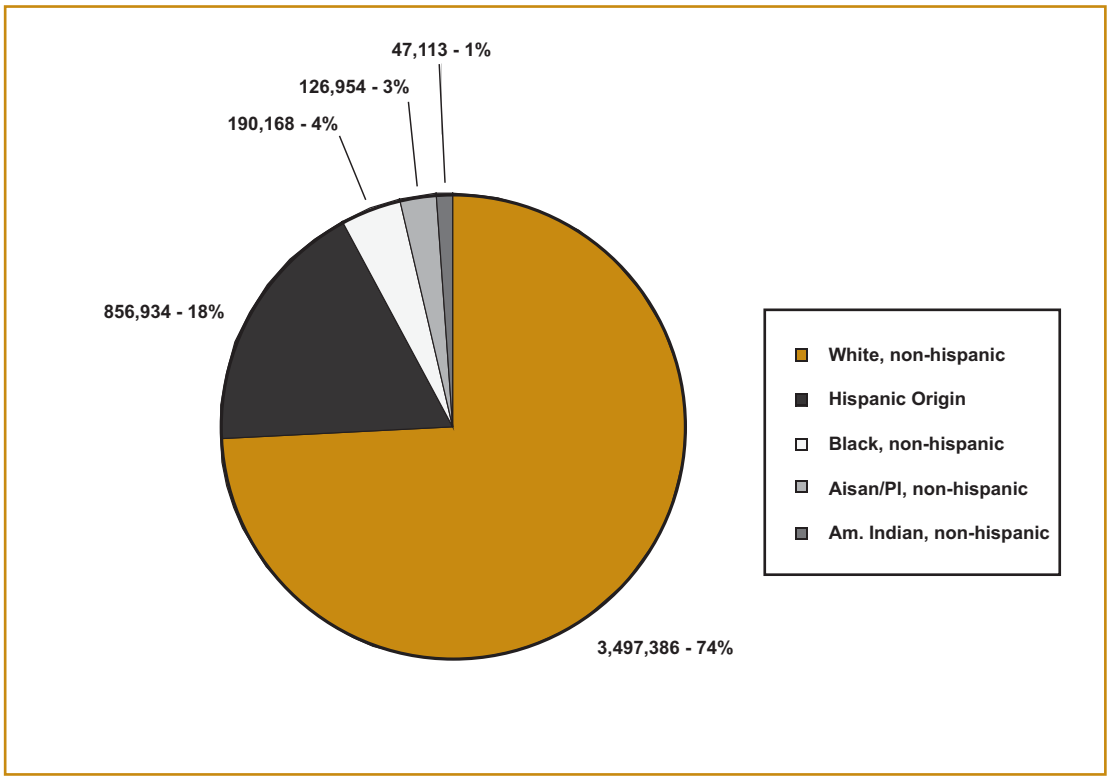
6.3.4 Changing Ethnicity

Colorado's Hispanic population continues to grow both in absolute size and in proportion to the total population. In 2000, Colorado was home to 742,000 persons of Hispanic origin, representing 17% of the total population. By 2005, the Hispanic population had grown to 856,000 or 18% of the state's population, based on documented figures (Figure 52). (Hispanic population by county is shown on Map 17). Forecasts project that persons of Hispanic origin will represent 23% of the total population in 2030, totaling just under 1.7 million people.

Hispanics represent the fastest growing ethnic group in Colorado, but other ethnic groups show continued growth as well. Persons of Hispanic origin are projected to grow by 94% between 2005 and 2030 (Figure 53). Over the same time period, the population of non-Hispanic blacks will increase by 70%, the Asian/Pacific Islander population by 66%, and American Indians by 64%. Non-Hispanic whites, in contrast, will increase by roughly 44%.[32]

[30]Glaeser, John. "Millennials, the New Generation Boom Proves to Be Highly Desirable Market." California Parks and Recreation Society. Winter 2002. 1 Apr. 2008 <http://www.cprs.org/membersonly/Win02_Millennials.htm>.
[31]State of the Industry Report. Outdoor Industry Association. 2006.
[32]"Colorado State Demography Office." Colorado Department of Local Affairs. 10 Feb. 2008 <http://www.dola.state.co.us/demog>.

Figure 52. ***Colorado Population by Ethnic Group-2005***

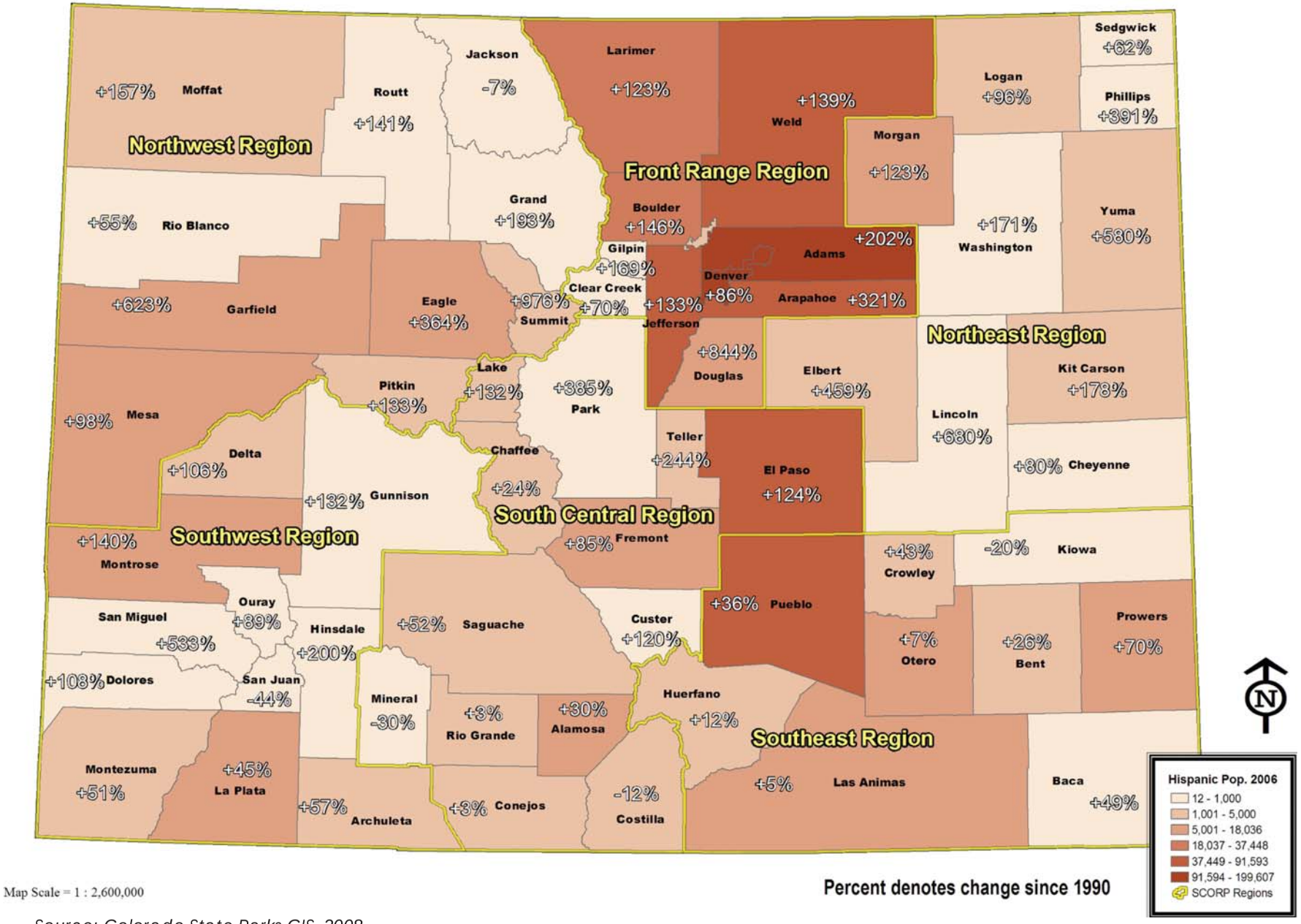


Source: Colorado State Demography Office, 2008

Many local, regional, and state parks are already witnessing changes in recreational use patterns as a result of increasing numbers of Hispanics recreating. Some of this can be attributed to Hispanics typically following cultural traditions that make family-oriented activities popular. In general, Hispanics tend to enjoy the "gathering" type of activities versus the organized type of activity that characterizes much of the municipal recreation landscape. "Spending the day at the park" is an enormously popular choice for Hispanic families, and park activities commonly range from having family cookouts, softball and soccer games, riding bikes, or simply soaking up the sun and listening to music.[33] This corresponds to findings in the *2007 Public Survey on Colorado Recreation Trends, Issues, and Needs* that indicated Hispanics (80% of respondents) prefer community trails or parks with ball fields when compared to other types of destinations (Appendix A).

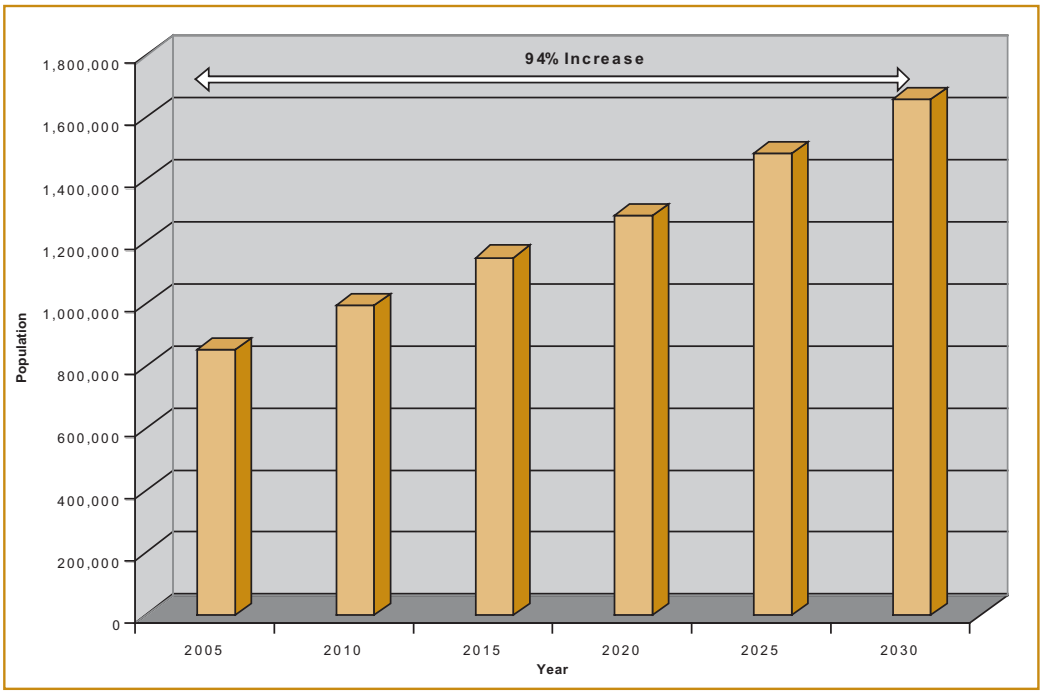
[33]McChesney, J., M. Gerken, and K. McDonald. "Reaching Out to Hispanics in Recreation." National Parks and Recreation Association. Mar. 2005. Accessed 18 Mar. 2008

Map 17: *Colorado Hispanic Population (2006)*



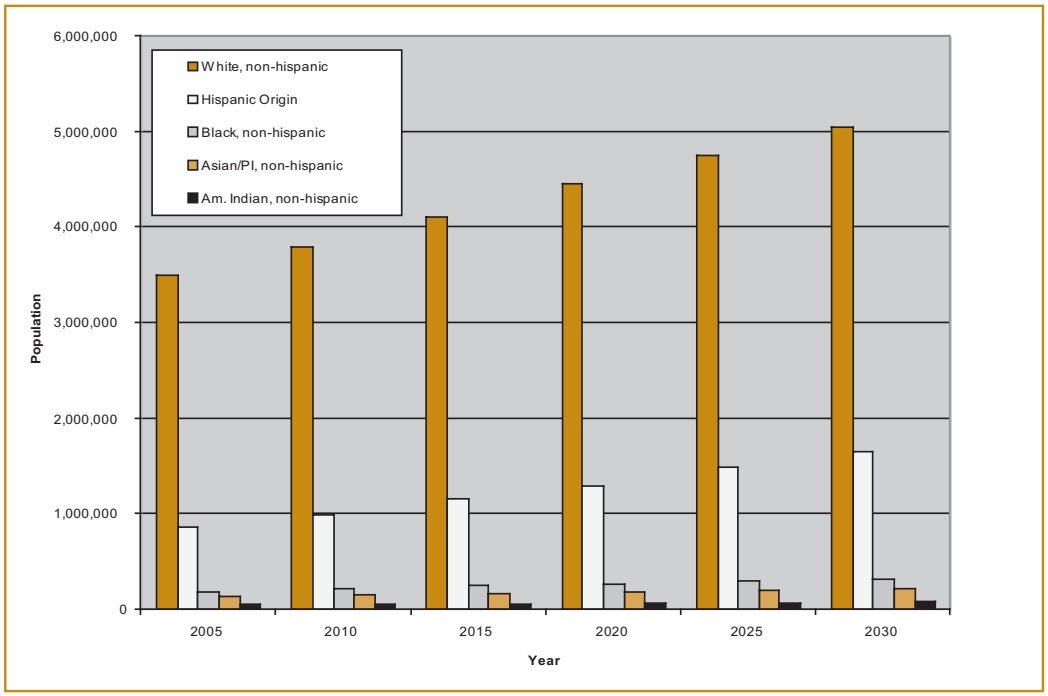
Source: Colorado State Parks GIS, 2008

Figure 53: ***Projected Population Growth in Colorado Hispanic Population (2005 – 2030)***



Source: Colorado State Demography Office, 2008

Figure 54: ***Projected Colorado Population by Ethnic Group (2005 - 2030)***



Source: Colorado State Demography Office, 2008

6.4 Public Health and Recreation

Physical activity is an essential component of efforts to improve public health. According to the Center for Disease Control (CDC) and Prevention, 48.1% of the national population gets the recommended amount of physical activity, compared to 53.9% of Coloradans. Physically active people have a lower risk of heart disease, diabetes, high blood pressure, obesity and some types of cancer. Despite the benefits of a physically active lifestyle, many Coloradans, particularly today's youth, are increasingly sedentary. As a result, rates of childhood obesity (13.5% in 2005) are particularly alarming. Colorado, like much of the US, is also witnessing declining youth participation in outdoor recreation-oriented activities. The increasing prevalence of "nature-deficit disorder" (as coined in Richard Louv's "*Last Child in the Woods: Saving Children from Nature Deficit Disorder*), has meant many of today's youth do not benefit from the social, mental, and physical benefits of being outside and recreating.

6.4.1 Increasing Rates of Obesity

The terms "overweight" and "obesity" are both labels for ranges of weight that are greater than what is generally considered healthy for a given height. The terms also identify ranges of weight that have been shown to increase the likelihood of certain diseases and other health problems. For adults, overweight and obesity ranges are determined by using weight and height to calculate a number called the "body mass index" (BMI). BMI is used because, for most people, it correlates with their amount of body fat.

- An adult who has a BMI between 25 and 29.9 is considered overweight.
- An adult who has a BMI of 30 or higher is considered obese.

The proportion of obese and overweight adults in the United States has increased steadily over the past twenty years and is now considered an epidemic. Unhealthy eating and lack of physical activity are the primary causes. Obesity is a key factor in many of the leading causes of death and disability, including diabetes, cancer, asthma and cardiovascular disease. In 2006, 25% of adults nationwide were obese and 37% overweight. In Colorado 18% were obese in 2006 and 37% overweight (Figure 55). Map 18 depicts obesity and overweight incidences for Coloradans by Planning and Management Region (PMR). These regions were determined by the Colorado Department of Public Health and Environment (CDPHE) and the Centers for Disease Control and Prevention (CDC) through the Colorado Behavioral Risk Factor Surveillance System (BRFSS), an ongoing statewide telephone survey which monitors health behaviors. Not all regions have been surveyed to date.[35]

Between 1997 and 2003, children's (ages 9 to 12) participation in outdoor activities like walking, hiking, fishing, gardening, declined 50%.

--University of Maryland Study cited in The Washington Post, 2007.

The higher the concentration of sites like parks, ballfields, and ball courts per block, the more likely middle school and high school students were to meet CDC physical activity recommendations and the less likely they were to be overweight.

--Journal of Pediatrics, 2006.

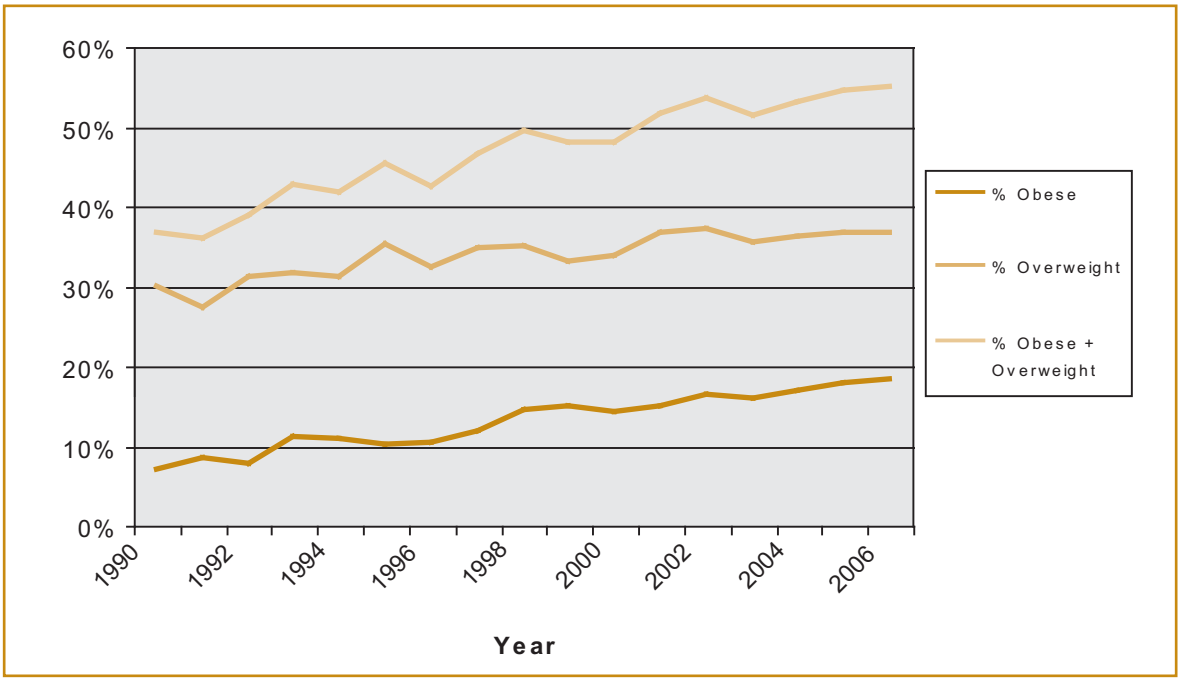
[34]"The Importance of Physical Activity." Department of Health and Human Services - Center for Disease Control and Prevention. 21 Mar. 2008 <http://www.cdc.gov/nccdphp/dnpa/physical/importance/index.htm>.
[35]"Colorado Health Information Dataset." Behavioral Risk Factor Surveillance System (BRFSS) Dataset Details. Colorado Department of Public Health and the Environment. 11 July 2008

Numerous entities are working diligently to combat the obesity epidemic in Colorado, several of which are discussed in the following sections.

The Colorado Physical Activity and Nutrition Program and Coalition

The Colorado Physical Activity and Nutrition Coalition (COPAN), within the Colorado Department of Public Health and the Environment, was established in 2001 to prevent obesity and related chronic diseases and to promote healthy lifestyles for all Coloradans. COPAN is a group of more than 450 public and private partners that work together to design, implement, coordinate, and evaluate statewide interventions.

Figure 55: ***Obesity and Overweight Prevalence in Colorado Population***

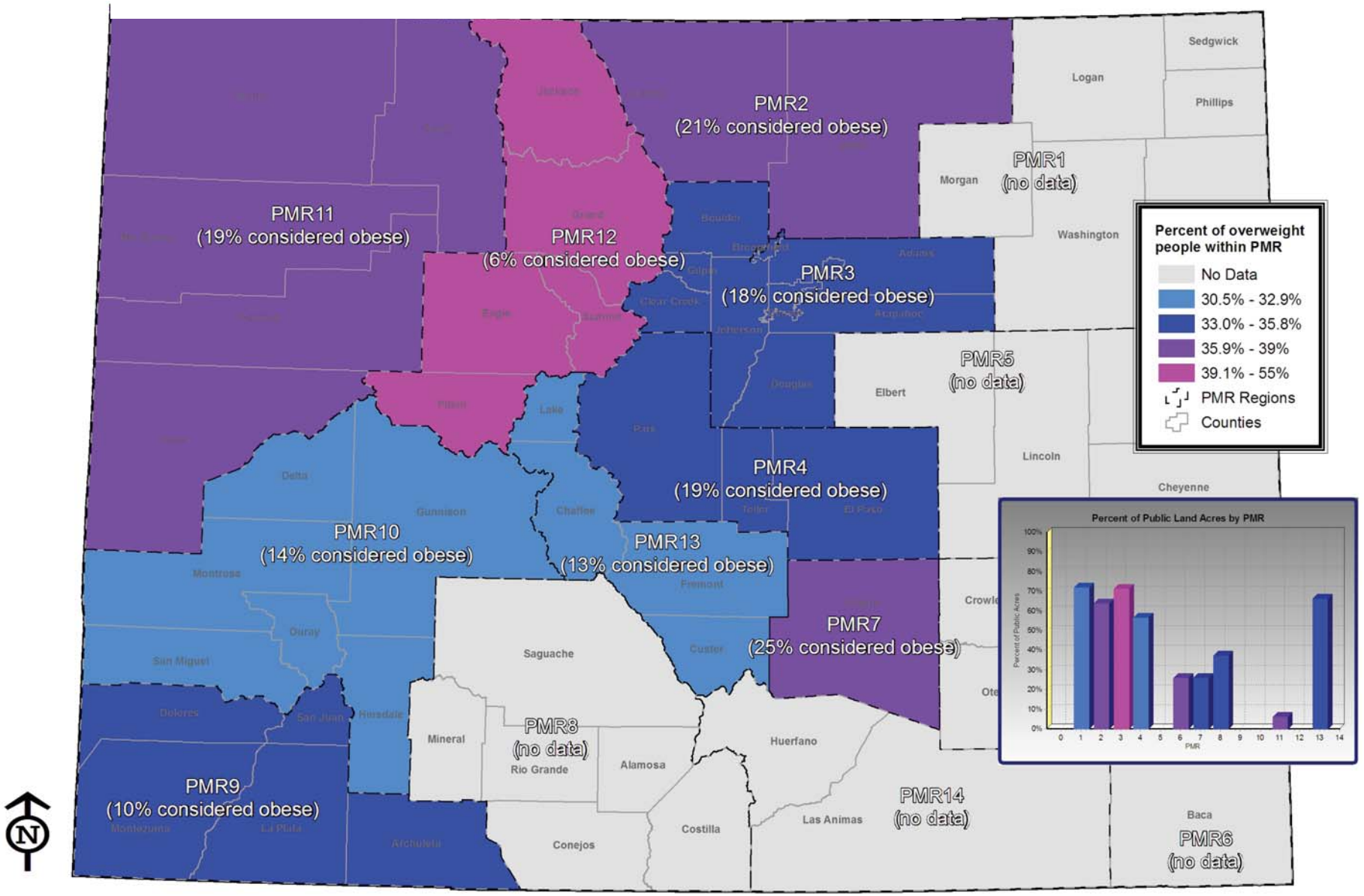


Source: Colorado Department of Public Health and Environment, 2007

43% of people who had access to safe walking places near their homes met recommended CDC activity levels, which is 30+ minutes per day during the week for adults and 60+ minutes per day for children.

--Active Living Research

Map 18: *Colorado Overweight & Obesity Incidence by PMR* (2006)*



Map Scale = 1 : 2,600,000

*PMRs are Planning and Management Regions established by the State of CO for general planning efforts. Data for rural counties (grey-shaded areas) is limited due to insufficient sample sizes and therefore are not included.

Source: CDC, CDPHE, 2008

The Coalition works to improve Coloradan's dietary habits and increase their physical activity. One of COPAN's primary responsibilities is the implementation of the *Colorado Physical Activity and Nutrition State Plan 2010*. The plan addresses education, community outreach, policy and environmental support in schools, worksites, healthcare settings, and communities. Plan objectives relating to physical activity include:

- Reduce to at least 20% the proportion of adults ages 18 and older who engage in no leisure-time physical activity.
- Increase to at least 30% the proportion of peoples ages 18 and over who engage in regular, preferably daily, moderate physical activity for at least 30 minutes per day.
- Increase to 30% the proportion of adults who engage in vigorous physical activity that promotes the development and maintenance of cardio-respiratory fitness, three or more days per week, for 20 or more minutes per occasion.
- Increase to at least 35% the proportion of adolescents in grades 9-12 who engage in moderate physical activity for at least 30 minutes, on five or more of the previous seven days
- Increase the proportion of adolescents to 85% who engage in vigorous physical activity that promotes cardio-respiratory fitness three or more days per week, for 20 or more minutes per occasion.[36]

A systematic review of published studies, conducted on behalf of the Task Force on Community Preventive Services, revealed that people will become more physically active in response to the creation of or improved access to places for physical activity. When improved access was provided, median estimates showed an increase of 25% in the percent of persons who exercise at least three times a week. Such findings have relevance to community planners and recreation, park, and open space providers. COPAN's Active Community Environment (ACE) Task Force represents collaborations and partnerships with public health, transportation, and community planning and design agencies in support of planning for and modifying existing environments to promote physical activity and healthy living. Active Community Environment strategies include:

- Assess, modify, and improve community planning and design to support and advocate for increased physical activity
- Develop land-use planning and development policies that integrate "smart growth" principles
- Develop an integrated parks and/or open space system with recreation facilities near every neighborhood and employment center.

LiveWell Colorado

In early 2007, The Colorado Health Foundation, the CDPHE, and Kaiser Permanente, initiated LiveWell (LiveWell) Colorado, an innovative collaboration "to reduce obesity in Colorado." LiveWell aims to organize duplicative efforts related to obesity-prevention activities in Colorado by streamlining concurrent planning efforts. Through evidence-based initiatives involving multiple sectors, LiveWell encourages Coloradans to "eat better and move more" through policies, programs, and environmental changes. In its first year of inception, LiveWell Colorado funded 12 community programs to accomplish its mission and served 87,000 Colorado residents. In addition, 724 schools, community groups, healthcare organizations, senior service providers, and local businesses also adopted LiveWell strategies.[37]

[36] Physical Activity and Nutrition State Plan 2010. Colorado Physical Activity and Nutrition Program. 2004.
[37] "The LiveWell Colorado Times," LiveWell Colorado, 3/17/08, 4/28/08, & 4/14/08.

6.4.2 Connecting Children to the Outdoors through Recreation

Nationwide, children are spending less time outdoors and becoming disconnected from the natural world. Research shows that children play outside half as much as children did twenty years ago and that they spend about six hours "plugged into" some type of electronic device, like video games or computers.[38] As a result, health issues, especially childhood and adolescent obesity rates, have increased dramatically. This disconnect threatens children's education, physical and mental health, and threatens the ability of tomorrow's leaders to understand and protect Colorado's resources. Hands-on learning and direct outdoor experiences are critically important to the intellectual and physical health of our youth.[39]

Children benefit enormously when they engage in unstructured play outdoors, not only for the child, but all of society. Children experience improved physical, mental, and emotional health; as well as improved test scores, higher grade point averages (GPAs), and cause fewer classroom disruptions.[40] Participating in outdoor play can restore attention, promote recovery from mental fatigue, and reduce stress. Unstructured, imaginative, and exploratory outdoor play is increasingly recognized as an essential component of wholesome child development and when integrating play within natural landscapes, it will stimulate more active and creative types of play.[41] Lastly, later in a child's life, he/she will likely be better prepared to recognize the importance of preserving Colorado's outdoor recreation heritage.

"Hands-on learning and direct outdoor experiences are critically important to the intellectual and physical health of the learners. Environmental education can provide our youth with quality opportunities to directly experience the natural world and improve the overall academic performance, self-esteem, personal responsibility, community involvement, and personal health. Colorado can continue to be one of the healthiest states in the country, in part through employing successful and effective environmental education strategies."

-Colorado Alliance for Environmental Education

"Children need Nature. I believe we must build a bridge between our families and the outdoors, wherever we can and whenever we can. We need to put a fishing rod in our children's hands. We need to take them out into dew-covered fields at daybreak or on the still waters of a mountain lake at twilight. We need to instill in them the love of nature that later in life will lift them up. For many Americans, this opportunity to reconnect with the outdoors still lies beyond their grasp."

-Dirk Kempthorne
Secretary of the Interior

[38]Brandeis White, Esq., Heather. National Wildlife Federation. No Child Left Inside: Reconnecting Children to Nature. 2008.
[39]Sweeney, A. "Environmental education and outdoor recreation." 11 May 2008.
[40]Chawla, Louise, and Myriam Escalante. Student Gains From Place-Based Education. University of Colorado at Denver and Health Sciences Center. 2007.
[41]Frumkin, Md, H., and R. Louv. Conserving Land; Preserving Human Health – Essay for the Land Trust Alliance Special Anniversary report. 2007

In response to this issue, grassroots campaigns are being initiated in a large number of states. Programs like California's "Children's Outdoor Bill of Rights" and the "No Child Left Inside" legislation are becoming increasingly popular in a variety of other states. Such resolutions or legislation are designed to encourage parents, educators, health professionals, park managers, and others to promote the outdoors to children in order to improve their mental, physical, and social well-being. "No Child Left Inside" legislation recently passed in Connecticut and Maryland, and is also proposed on the federal level.

6.5 Funding Shortfalls for Recreation Management

Stagnant or declining funding has directly affected the ability of many local governments and state and federal agencies to address recreation management needs and meet increasing statewide recreation demands. A slowing economy, increased fuel costs, higher priorities for funding (e.g., transportation, health, and education), and stagnant or declining tax revenues are just a few of the factors that have contributed to recent funding shortfalls. Strategic partnerships and increased or additional revenue sources are necessary to provide adequate funding for capital construction as well as management and maintenance of existing facilities and infrastructure. For example, as part of a 2007 survey of Colorado recreation conducted by the University of Colorado Leeds School of Business, most respondents believed recreation areas needed more funding and were also in favor of alternate funding sources such as increased user fees or voluntary tax contributions; only one percent believed that recreation areas already received more than enough funding (Table 80).[42]

A summary of survey findings relevant to funding shortfalls is provided below.

6.5.1 Public Perceptions about Funding Priorities and Needs

In July 2007, the Business Research Division in the Leeds School of Business at the University of Colorado at Boulder conducted a telephone survey of Colorado residents on behalf of Colorado State Parks. The survey asked respondents about the preferences for recreation activities and adequacy of funding for recreation and how funding should be distributed.

A majority of respondents (62%) indicated that recreation managers need additional public funding to manage and maintain recreation areas. Among different ethnic populations, 65% of Caucasians and 72% of Hispanics believe that local, state, and federal lands need *more* money to maintain and improve facilities. Only one percent of all residents surveyed believed they already received more than enough funding.[43]

Table 80: ***Funding for Management and Maintenance of Recreation Areas***

Perception of Funding	Percentage of Responses
Need additional public funding	62%
Receive adequate public funding	29%
Receive more than enough public funding	1%
Don't know/no response	8%
Total	100%

Source: Colorado Public Survey, 2007

[42]Horvath, G., C. Hickey, and C. Dipersio. A Survey Of Colorado Recreation: Trends, Issues, And Needs. Business Research Division, Leeds School of Business. University of Colorado at Boulder, 2007. 7 Apr. 2008 <http://www.cde.state.co.us/artemis/ucb4_5/ucb412r242007internet.pdf>.
[43] Ibid.

The survey showed (from a list of six options, shown below in Table 81) the highest priorities for future funding should be directed toward long-term planning and management as well as for operation and maintenance of *existing* infrastructure and facilities. A lower priority rating was given to future funding for programs and visitor services, as well as to the development of new facilities at existing recreation sites.

Table 81: *Future Funding Priorities*[44]

Services	Low Priority	Medium Priority	High Priority	No Opinion/ Don't Know
Operation and maintenance of existing infrastructure and facilities	4%	30%	63%	3%
Long-term planning and management	5%	26%	62%	7%
Acquisition of new parks and open space	11%	34%	50%	5%
Local, regional, and statewide trails	5%	43%	45%	7%
Development of new facilities at existing recreation sites	15%	56%	26%	4%
Programs and visitor services	20%	54%	23%	4%

Note: Responses were recorded on a scale from 1-5 where 1 means lowest funding priority and 5 means highest funding priority. Sum of each row may not equal total due to rounding.

Likewise, as shown in Table 82, when presented with the options of a returnable bottle deposit, increased parking or day use fees at recreation sites, and voluntary contribution on Colorado state income tax form, survey respondents were largely in favor of these types of funding measures to increase revenue for recreation managers.

Table 82: *Outdoor Recreation Funding Measures & Levels of Support*

Funding Strategy	In Favor
Returnable bottle deposit	85%
Voluntary contribution check-off on Colorado income tax form	87%
Increasing day-use or parking fees	46%

Source: Colorado Public Survey, 2007

[44] Ibid.

6.5.2 Local Government Recreation Providers

Local governments (including park and recreation departments/districts, open space management agencies, and school districts) play an important role in meeting demands for local recreation. Local governments manage and maintain most of the community parks, playgrounds, and trails that are enjoyed by many Colorado citizens. According to both the 2003 and 2007 Local Government Surveys, local governments reported significant funding shortfalls. Of the 140 completed surveys in 2007, about 28% of agency respondents reported having a funding source (other than state lottery funds) dedicated specifically for park, open space, and trail investments. Despite this fact, many local governments ranked "insufficient funding" as one of their top four issues. The year-to-year stability of budget was ranked as the 5th most important issue overall.

*Local governments reported about **$440 million** in unmet acquisition and capital improvement needs.*

When asked about five-year acquisition and capital improvement plans, agencies responded that their investment needs exceeded $992 million, with only $552 million in allocated funding. This 44% funding shortfall equates to over $440 million in unmet acquisition and capital improvement needs.

6.5.3 Significant State Recreation Providers

The primary state agencies tasked with managing recreation in Colorado include Colorado State Parks (which includes the Colorado State Trails Program), and the Colorado Division of Wildlife. A brief summary of some of the budgetary or funding constraints related to each agency is provided below.

Colorado State Parks

Nearly 50 years ago, the State Park system opened roads, campgrounds, buildings, and other recreation facilities for public use. Today, many older parks have aged and facilities have reached the end of their expected life cycle. In the future, State Parks hopes to work aggressively to address a backlog of deferred maintenance and park rehabilitation projects, despite considerable funding limitations.

In 2007, park managers were asked to conduct a preliminary assessment of facility conditions and identify necessary "major repair and replacement projects." Costs to address deferred maintenance projects, primarily related to public health and safety, were estimated at over $150 million.[50] Three separate funding issues significantly affecting the overall financial health of State Parks include: 1) staffing levels remain inadequate to effectively support visitor expectations, operate cash-generating venues, and maintain quality facilities and services; and 2) the cost of operating State Parks increases each year due to inflation; and 3) additional funds are needed to build an adequate emergency reserve.[51]

The Colorado State Parks operations and capital construction budgets are the primary funding sources for addressing staffing needs, major maintenance, and park rehabilitation projects. Declines or stagnant funding in the agency's operating budget will subsequently impact older state parks, many of which have an extensive backlog of deferred maintenance or rehabilitation needs. Colorado State Parks' operating budget is funded through a variety of sources including general fund; cash fund (i.e., revenue-generated funds); and federal funds, grants, and donations. In FY 2006-07, General Fund dollars represented 18.5% of State Parks' appropriated operating budget.

[50]Details of this statewide facility assessment of deferred maintenance projects were presented to the Colorado State Parks Board in February 2007.
[51]Financial Future: Footnote #100 Report to the Joint Budget Committee. Colorado State Parks. 2007.

The Value of Volunteers

Volunteers play an integral role in mitigating funding shortfalls for a multitude of federal, state, and local agencies as well as non-profit organizations. Highlights of some of the most significant statewide volunteer programs (that track volunteer hours on an annual basis) are described below. For details on Volunteer Trends, refer to *Section 3*.

- ***Volunteers for Outdoor Colorado (VOC)*** - VOC engaged 2,115 volunteers in 2007, providing $1.1 million in value through 24 stewardship projects. VOC volunteers build trails, plant trees, battle invasive species, or restore habitat.[45]
- ***Colorado Division of Wildlife (CDOW)-*** In 2007, volunteers provided CDOW with over 65,000 hours of time valued at $968,000, the equivalent of 31 full-time employees. Volunteers performed work on 318 projects throughout the state such as banding thousands of Canada Geese, removing thousands of shot gun shells and miles of barbed wire from a State Wildlife Area, and scouting and counting herds of bighorn sheep.[46]
- ***Colorado State Parks*** - A total of 6,077 volunteers provided State Parks with over 200,000 hours of their time (valued at $3.9 million) and services (equivalent to 96 full-time employees). Volunteers provide a myriad of services at State Parks including visitor services, maintenance and construction projects, stewardship projects, and also serve as campground hosts.[47]
- ***National Park Service (NPS) in Colorado*** - Through the Volunteers-in-Parks Program, NPS sites in Colorado benefited from over 193,000 volunteer hours in 2007 valued at $3.6 million, an 8% increase in hours from 2006. Many VIP volunteers have expertise in archeology, geology, education, natural science, cultural science, preservation or work as campground hosts, trail or boating ambassadors, and outreach education interns.[48]
- ***Local Governments-*** Many local governments statewide also rely on volunteers. The 2007 SCORP Local Government Survey revealed that of the 140 respondents:
  - Local governments utilize volunteers for over 283,000 hours annually
  - 21% of local governments use volunteers for visitor services
  - 39% use volunteers for maintenance and construction projects[49]

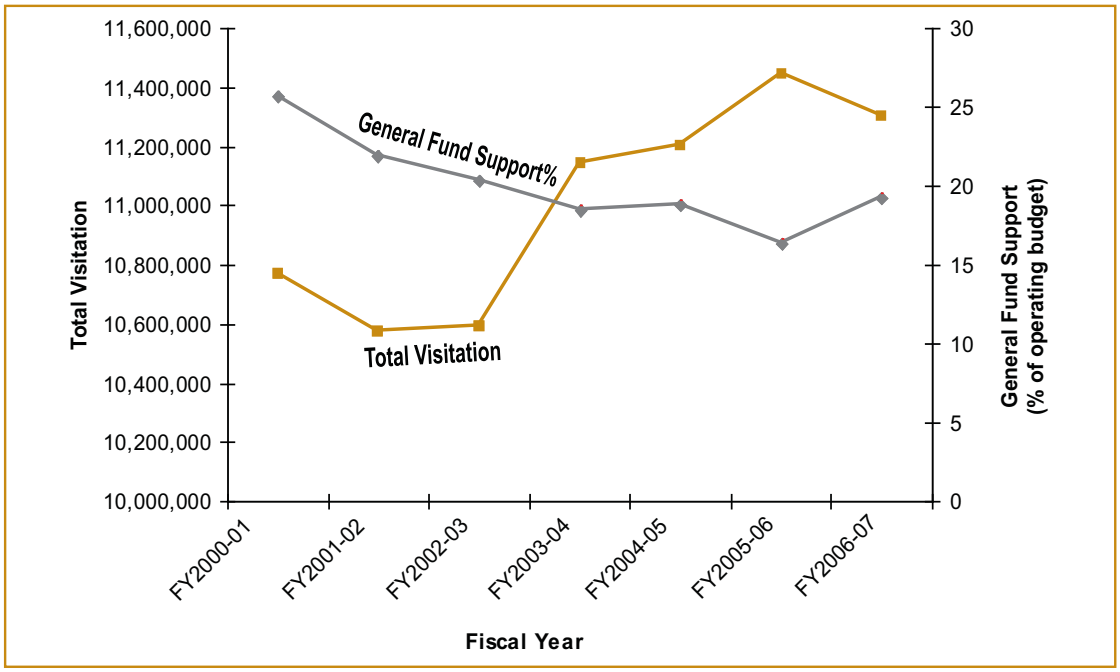
Volunteers don't get paid because they are worthless, but because they are priceless.

-2007 Colorado Division of Wildlife Volunteer Program Annual Report

Since that time, the General Fund contribution to State Parks' operating budget has declined due to the State's budget restrictions under TABOR. Declines in General Fund dollars, along with increased visitation (Figure 56), have necessitated that State Parks generate increased cash funds through fee increases. Through aggressive efforts to increase revenue such as fee increases, takeover of retail operations at some parks, and other revenue-enhancement efforts, State Parks is one of the most financially self-sufficient park systems in the country.[52] Colorado State Parks, and the Colorado Department of Natural Resources (which oversees the agency), however,are concerned about over-reliance on fee-generated revenue and the misconception that State Parks can continue to offer a quality system into the future by simply increasing existing fees or charging new ones.[53]

[45]Baker-Easley, A. "VOC Info for SCORP." 27 Aug. 2007.
[46] "2007 Colorado Division of Wildlife Volunteer Program Annual Report." Colorado Division of Wildlife. 9 June 2008 <http://wildlife.state.co.us/NR/rdonlyres/2B8AA361-FC15-40F6-BE32-9793ADC9BAB6/0/Annualreport2007Small.pdf>.
[47]Koeltzow, F. "SP Volunteer Info for SCORP." 17 June 2008.
[48]Salazar, K. "Colorado VIP Stats." 20 June 28.
[49]2007 SCORP Local Government Survey. Colorado State Parks. 2007.
[52]In the 2006 National Association of State Park Directors Annual Information Exchange, the amounts of park generated revenue and General Fund support is listed for all fifty states. When comparing the percentage of General Fund support to park-generated revenue, the average General Fund support for all state park systems is 46%. Using this methodology, Colorado receives the 10th lowest amount of General Fund support of all 50 states.
[53]Financial Future: Footnote #100 Report to the Joint Budget Committee. Colorado State Parks. 2007.

Figure 56: ***Visitation Trends and General Fund Support***



Colorado Division of Wildlife

The Colorado Division of Wildlife (CDOW), unlike Colorado State Parks, is an "Enterprise Agency" that is funded primarily through hunting and fishing license fees, federal grants, and Colorado Lottery proceeds through Great Outdoors Colorado. As an Enterprise Agency, CDOW is exempt from the TABOR Amendment, and its associated limits on state budget spending.

CDOW finances are primarily tied to hunting and fishing licenses that sportsmen procure to have the opportunity to hunt and fish in Colorado. Recent data suggests that 83% of total hunting revenue comes from non-residents, and 68% in combine fishing/hunting license revenue.[54]

Table 83: ***CDOW Revenues (2002 - 2007)***

FY	Licenses (Net)	Federal	GOCO, grants	Interest	Other	Total
2002	$58,783,370	$11,580,602	$10,400,000	$4,158,189	$2,177,621	$87,099,782
2003	$60,654,392	$12,845,370	$9,800,000	$2,949,021	$729,898	$86,978,681
2004	$67,407,586	$15,977,349	$13,363,016	$1,786,459	$1,761,916	$100,296,326
2005	$65,038,520	$13,375,531	$16,000,000	$1,905,416	$2,559,068	$98,878,535
2006	$74,483,904	$14,264,964	$10,288,000	$2,626,813	$2,480,457	$104,144,138
2007	$82,423,999	$15,257,720	$11,443,968	$3,662,187	$1,012,311	$113,800,185

[54]Ingram, K. "Resident License Fee Bill." Colorado Wildlife Federation. 18 Apr. 2005. 25 Mar. 2008 <http://coloradowildlife.org/hot-topics/Resident-License-Fee-Bill-becomes-law-2005.html>.

CDOW revenues increased an average of 5.7% between 2002 and 2007 and generally kept pace with expenditures in all years except 2003 (Table 84). This is generally consistent with Wildlife Commission policy, which requires CDOW to hold its total expenditures to a level equal to or less than revenues. This enables CDOW to maintain a a healthy reserve to enable it to deal with unanticipated needs and emergencies (i.e., whirling disease, supplemental winter feeding programs for wildlife under extreme snowfall conditions, etc.).

Table 84: ***CDOW Budget Trends (2001 - 2007)***

Year	Revenues	Expenditures	Surplus/(Deficit)
2002	$87,099,782	$85,518,319	$1,581,463
2003	$86,978,681	$89,983,273	($3,004,592)
2004	$100,296,326	$91,274,556	$9,021,770
2005	$98,878,535	$97,654,705	$1,223,830
2006	$104,144,138	$96,654,585	$7,489,553
2007	$113,800,185	$96,192,574	$17,607,611

Attaining surpluses in most years does not indicate that CDOW has experienced funding shortfalls. However, holding expenditures down to maintain surpluses has required programmatic cuts and has prevented CDOW from delivering programs and services demanded by many of its constituents. For example, in recent years CDOW has cut youth education programs, held fish production levels steady, deferred maintenance of many of its physical assets, and refrained from funding proposed research projects on both game and sensitive species. In addition, proposals from frequent and extensive big game inventories have not been funded and access for hunting (e.g., via lease agreements with private landowners) has not been expanded.

6.5.4 Federal Agencies

The three largest federal land owners charged with managing recreation in Colorado include the U.S. Forest Service, Bureau of Land Management, and National Park Service. Decisions on annual budget appropriations in Washington D.C. are the primary factors influencing funding for recreation management within these agencies. A brief discussion of funding constraints and issues that influence recreation on these lands is provided below.[55]

U.S. Forest Service

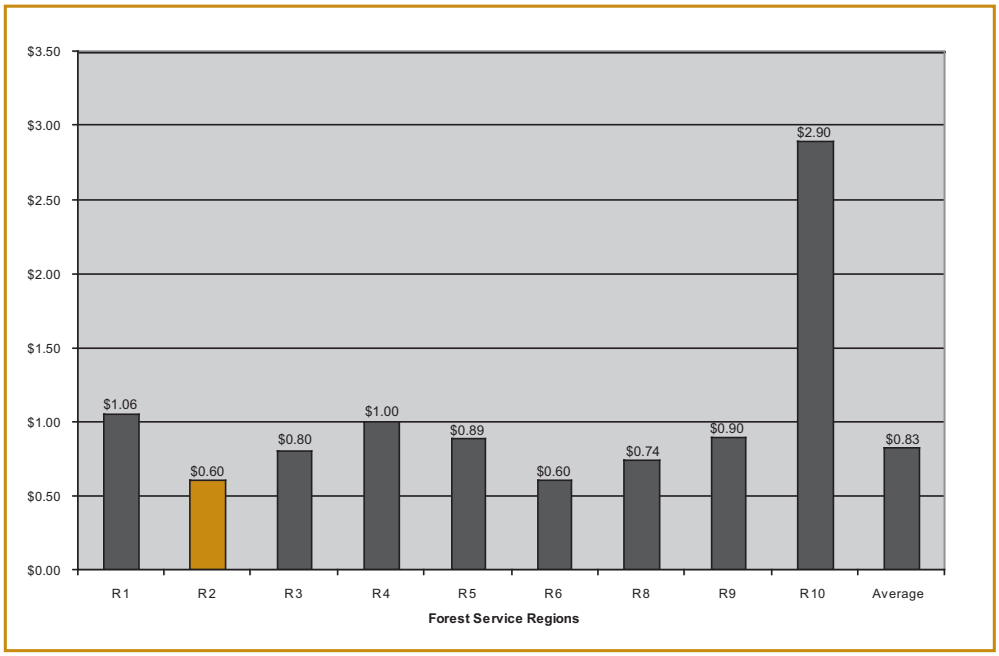
Nationwide, recreation (including hunting and fishing) creates nearly 80% of the Gross Domestic Product generated from U.S. Forest Service (Forest Service) lands, yet only about 10% of the Forest Service budget is dedicated to recreation.[56] While total economic benefits resulting from recreation occurring on Colorado's 14.4 million acres of national forests has not been calculated, it is a well known fact that much of the state's tourism economy is supported by skiing, hiking, boating, and other recreation activities that occur on national forest land.

[55]This section is not intended to be a comprehensive description of all of the budget components within each agency. To the extent possible, discussion focuses on specific budget elements tied to recreation within Colorado. Due to the complexity of administration and …

[56]FY 2004 Recreation and Conservation Funding Request. OIA; Outward Bound; American Hiking Society; American Whitewater; Partnership for the National Trail System; and SCA. 2004

Colorado's national forests comprise the majority of national forests in U.S. Forest Service Region 2 (which includes Colorado, Wyoming, South Dakota, Nebraska, and Kansas). This region's national forests provide more recreational visitor days than any other region in the nation, amounting to about 32.5 million per a year.[57] Despite this fact, Forest Service expenditures per visit in Region 2 are among the very lowest of the ten regions, and well below the national average per forest, amounting to an average expenditure per visit of about $0.60 (Figure 57).[58]

Figure 57: ***Region 2 Expenditure per Visit vs. All Other Forest Service Regions (2006)***



Source: Forest Service, Region 2, January 2006

Colorado is the greatest contributor in terms of visitation to U.S. Forest Region 2, having an estimated 25.5 million annual visitors. While national forest use and visitation in Colorado continues to increase, actual funding for Colorado's national forests has dropped. In 2004, national forests received $19.3 million in funding. By 2007, funding had decreased about $15.3 million (a 26% decrease).[59] These funding declines have reduced the Forest Service's capacity to effectively maintain and operate existing recreation programs, trails, and recreational facilities. In addition, funding declines have translated into reduced administrative capacity and levels of recreation resource analysis and planning.[60]

[57]Letter from the Colorado Congressional Delegation to the Honorable Charles Taylor (Chairman, Subcommittee on Interior, Environment, and Related Agencies, US House of Representatives Committee on Appropriations) and Honorable Norman Dicks (Ranking Member Subcommittee on Interior Appropriations)." 26 Mar. 2006.
[58]Includes total visits from National Visitor Use Monitoring (NVUM) Data for forests in CO (datasets are from 2001-2006)
[59]U.S. Forest Service funding includes funds spent on the forest such as National Forest System Recreation, Heritage & Wilderness Management funding (NFRW) and Interior & Related Agencies appropriation for Forest Service Facility Construction & Maintenance (CMFC). Forest Service funding does not include funds held in Regional Office that did work for Forests or Regional Office costs. Does not include recreation facility improvement project funds. Routt National Forest funding was based on 45% NFRW, 50% CMFC and 67% Interior & Related Agencies appropriation for Forest Service Trail Construction & Maintenance (CMTL) spent in Colorado's portion of the Medicine Bow/Routt National Forest.
[60]FY 2004 Recreation and Conservation Funding Request. OIA; Outward Bound; American Hiking Society; American Whitewater; Partnership for the National Trail System; and SCA. 2004.

U.S. Bureau of Land Management

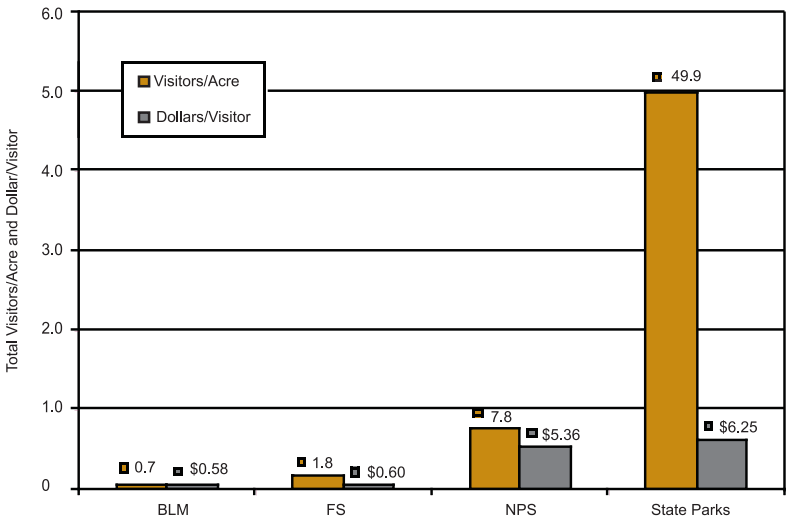
Bureau of Land Management (BLM) lands have become increasingly popular amenity for visitors seeking vast expanses of open land with undeveloped, high-quality recreation opportunities in Colorado. In 2006, annual visitation to BLM lands in Colorado was estimated to be about 5.8 million people, which is a 14% increase from the 5.1 million people that visited in BLM lands in 2002.[61]

Over 60% of the Bureau of Land Management's BLM budget is allocated to a "Management of Lands and Resources" (MLR) account, which provides funding for rangeland management, law enforcement, energy and minerals, fuels management, recreation, and a variety of other areas. Within that account, Colorado's share was $63.3 million in 2007. The amount of Colorado's MLR budget that is appropriated specifically to recreation management is typically about five to six percent of this total (or $3.4 million in 2007).[62] While this is a 27% increase in funding from 2002 recreation funding levels, additional funding is needed for the agency to keep up with the increasing numbers of recreationists that seek out the myriad of recreation opportunities on BLM lands.

National Park Service

Visitation to Colorado's national parks, national monuments, and national historical sites (which are all administered through the National Park Service (NPS)) increased from 5.3 million people in 2002 to about 5.4 million people in 2006. Colorado's share of the National Park System (ONPS) budget, which is directly applied to areas such as park management, visitor services, facility operations and maintenance, and resource stewardship, experienced an 11% budget increase between 2002 and 2006 from about $26.0 million to $28.8 million. This amounts to an average expenditure of about $5.36 per visitor, which is slightly higher than the Forest Service and BLM. Despite an increase in the ONPS budget, existing funding levels have failed to keep pace with increasing operational needs over time and cumulative budget shortfalls since 2000.

Figure 58: ***Average Dollars Spent Per Visitor and Visitors per Acre on Forest Service, BLM, NPS, and State Park lands[63]***



Source: BLM, Forest Service, NPS, and State Parks, 2007

[61]Bruns, D. "BLM estimated total visits as compiled by individual field offices." 26 July 2007.
[62]Bruns, D. "BLM Funding History Update." 27 Mar. 2008.
[63]The CDOW is not included in Figure 56 because visitation is not tracked. The FWS is not included because detailed budget information for Colorado wildlife refuges were not readily available

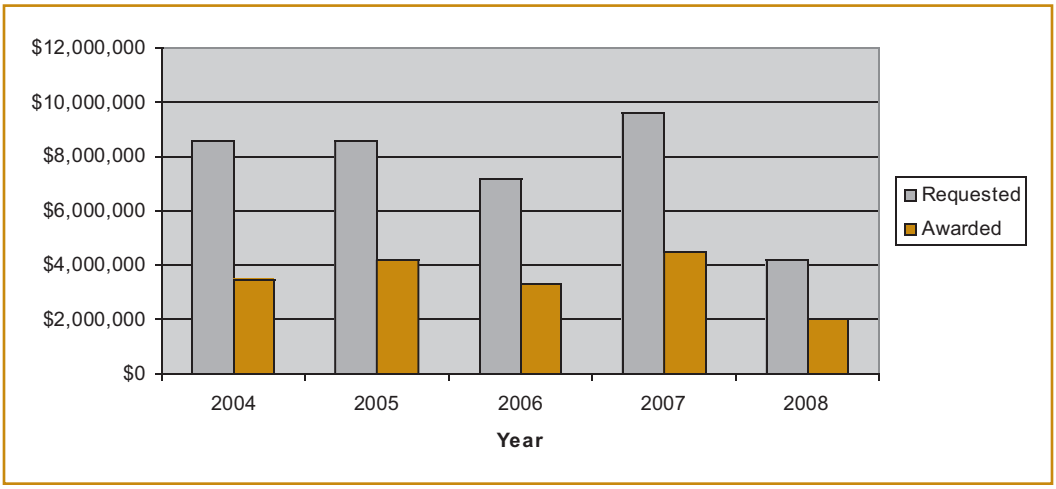
6.5.5 Key Recreation Grant Funding Programs

This section overviews key recreation funding programs that contribute significantly to outdoor recreation and open space projects across Colorado the respective funding requests and actual grants awarded. While these programs make valiant attempt to meet the needs of recreation managers and outdoor enthusiasts throughout the state, they are unable to meet public demand. For more details on grant awards by county and region, refer to *Section 5: SCORP Regional Profiles.*

Colorado State Trails Program

The Colorado State Trails Grants Program, housed within Colorado State Parks, funds trail planning and design, construction, maintenance, special projects, and equipment for local governments and interest groups throughout the state. Despite declining LWCF contributions and increasing trends in trail recreation, grant applications to the Colorado State Trails Program continue to increase. As many local recreation managers cope with unstable budgets, they must increasingly rely on outside funding sources such as the Colorado State Trails Program. Figure 59 depicts the magnitude of demands for trails grants and the limitations of the Colorado State Trails Program to meet those needs. In 2007, over $9.6 million in grant applications were requested through the Colorado State Trails Program, while approximately $4.5 million was awarded, funding less than half of the requests. As of mid-2008, only $2 million of the $4.2 million in applications was funded, or 48%.[64]

Figure 59. ***State Trail Grant Requests vs. Actual Awards (2004 – 2008)***[65,66]



Based on applications between 2001 and 2007, requests for Colorado State Trails Program grants are expected to rise significantly in future years. By 2010, requested amounts are anticipated to exceed $16 million.[67]

[64]"2008MasterListofGrantsNumberandCategories31708.xls." Colorado State Trails Program. Colorado State Parks. 11 May 2008 <www.parks.state.co.us/trails>.
[65]Applications likely decreased in 2006 and in 2008 because of a notice circulated by the Colorado State Trails Program Manager informing potential applicants that grants would be even more competitive because of declining revenue to the Colorado State Trails Program.
[66]Amounts are rounded to the nearest hundred thousand.
[67]Newman, W. Excerpt From: *Alternative Funding Strategies for the Colorado State Trails Program*. Colorado State Parks. 2006.

Table 85: ***Colorado State Trails Program Grant Funds (2004–2007)***[68]

Fiscal Year	Amount Requested	Amount Awarded	% Not Funded
2007	$9,600,000	$4,500,000	53%
2006	$7,200,000	$3,300,000	46%
2005	$8,600,000	$4,200,000	49%
2004	$8,600,000	$3,500,000	41%
Average Funding Shortfall			**46%**

Great Outdoors Colorado

While Great Outdoors Colorado (GOCO) provides extraordinary resources for recreation and open space amenities, the agency is unable to meet the enormous demand for grant requests. Details on some of GOCO's grant programs funding are outlined in Table 86 and displayed in Figure 60. Between 2004 and 2007, 188 Open Space grant applicants applied for nearly $50 million, and only 95 applications were funded ($13 million in unmet need). During the same time period, $35 million was awarded through Local Parks and Outdoor Recreation grants, or 52% of total monies requested ($33 million in unmet need). Of the 147 Mini Grants received, 92 were funded, or about 58% of the amounts requested.

Table 86: ***Competitive GOCO Grant Funding (2004-2007)***

Open Space Grants					
Year	Number of Requests	Number of Awards	Amount Requested	Amount Funded	% Not Funded
2004	29	23	$15,874,133	$11,052,898	70%
2005	34	29	$12,240,280	$9,056,738	74%
2006	33	24	$12,058,683	$7,896,328	65%
2007	22	19	$9,476,336	$8,490,742	90%
TOTALS	118	95	$49,649,432	$36,496,706	74%
Local Parks and Outdoor Recreation Grants					
Year	Number of Requests	Number of Awards	Amount Requested	Amount Funded	% Not Funded
2004	103	61	$18,191,219	$10,066,390	55%
2005	75	38	$10,218,000	$5,572,502	55%
2006	101	51	$15,158,736	$7,581,549	50%
2007	96	44	$24,315,265	$11,815,661	49%
TOTALS	375	194	$67,883,220	$35,036,102	52%
Mini Grants					
Year	Number of Requests	Number of Awards	Amount Requested	Amount Funded	% Not Funded
2004	45	30	$900,321	$516,869	57%
2005	45	29	$966,408	$587,874	61%
2006	32	19	$836,127	$487,871	58%
2007	25	14	$586,851	$331,031	56%
TOTALS	147	92	$3,289,707	$1,923,645	58%
Legacy Grants					
Year	Number of Requests	Number of Awards	Amount Requested	Amount Funded	% Not Funded
2004	68	18	$404,214,958	$60,217,675	15%
2007	37	16	$211,281,392	$64,123,647	30%
TOTALS	105	34	$615,496,350	$124,341,322	20%

Source: GOCO, 2008

[68]Amounts are rounded to the nearest hundred thousand.

In addition, periodically, Legacy Program grants are available for large-scale, multi-million dollar, long-term projects with a regional or statewide impact (when GOCO's financial position permits). Legacy grants were offered in 2004 and 2007 (Figure 61). In 2004, only 15% of the funding needs were met ($60 million was awarded and $404 million requested), benefiting 18 of the 68 entities that applied for these competitive projects that applied, leaving $147 million in unmet needs.[69]

Figure 60: ***GOCO Funding Requests vs. Actual Awards (2004 – 2007)***

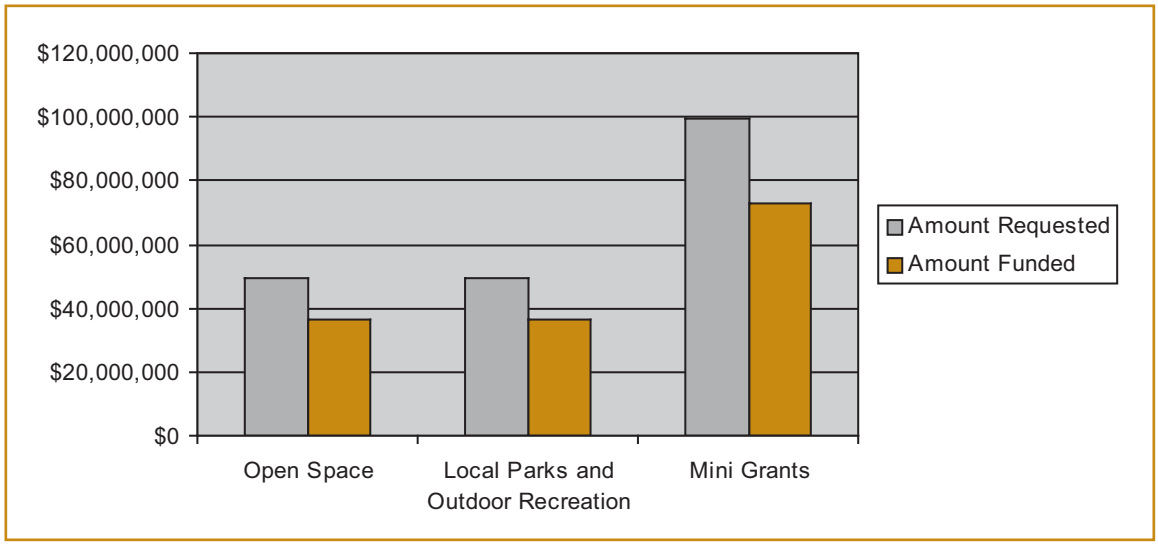
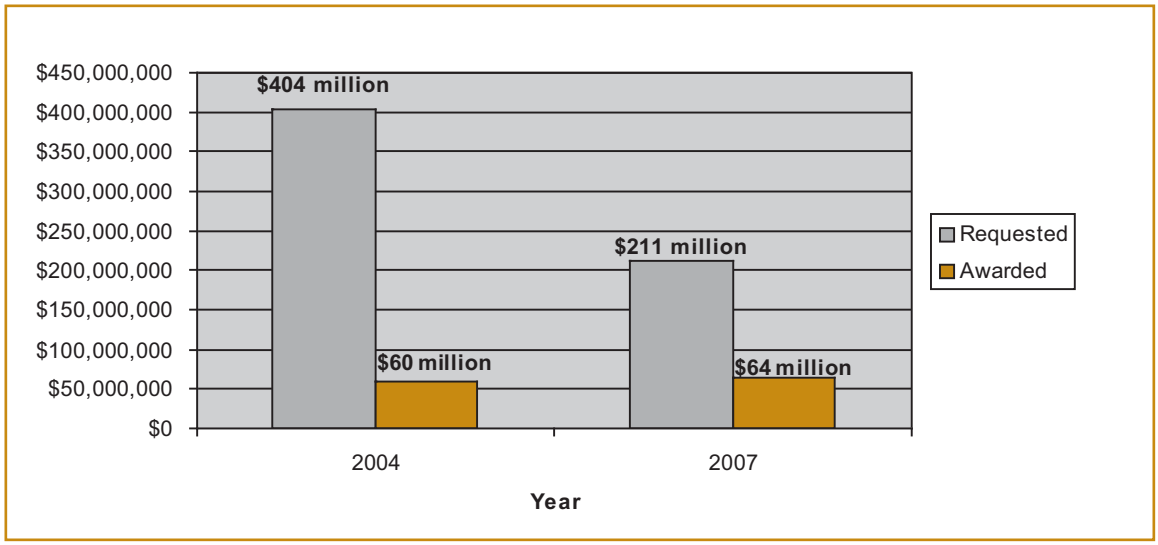


Figure 61: ***GOCO Legacy Grants Requests vs. Actual Awards (2004 & 2007)***



Source: GOCO, 2008

[69]Aangeenbrug, L. "GOCO Grant Requests/Awards." 9 May 2008.

Land & Water Conservation Fund Program (LWCF)

The LWCF program is authorized to receive $900 million each year from Congress, with Colorado eligible for about $7-8 million if Congress chooses to fully fund the program. However, since the program's inception, Congress has chosen to allocate a significant portion of the fund for purposes other than conservation and recreation. For a period of five years starting in 1995, no stateside LWCF funds were allocated at all. Between 2000 and 2008, Congress resumed funding at levels ranging between $394,719 (in 2008) and $2.4 million (in 2002). In contrast, Colorado received $5.4 million in LWCF funds in 1979.

Urban Park and Recovery Program (UPARR)

Another key program that administers recreation funding to local governments is the NPS Urban Park and Recovery Program (UPARR), which was created in 1978 to provide Federal assistance to urban localities for rehabilitation of critically needed recreation facilities. Historically, funds have typically been used to assist urban communities restore dilapidated recreation facilities and helped fund local and regional planning to continue operation and maintenance of recreation programs, sites, and facilities. Since its inception in 1978 through 2002, Colorado was awarded over $2.2 million in UPARR grants to Denver, Pueblo, Colorado Springs, and Lafayette. Nationally, over $272 million in grants were awarded to over 1,400 projects nationally. However, UPARR has not been funded since 2002.[70]

According to the Active Community Environments (ACE) Task Force, the average American driver spends 443 hours per year (or 55 eight hour work days) behind the wheel of a motor vehicle. Transportation systems designed around automobiles deter pedestrian and bicycle travel. In recent years, the traditional community design containing low-density housing and single-use land development patterns increase distances between start and end points, and thus, increase driving time and potential for traffic congestion.

6.6 Integration of Recreation Interests in Land Use and Other Relevant Planning Efforts

Many land use and transportation planning decisions have a direct effect on outdoor recreation, particularly on the availability of and access to various outdoor recreation opportunities in Colorado. Better coordination of recreation interests within the context of local, regional, and statewide land use, transportation, and other relevant planning efforts will ensure that outdoor recreation needs are adequately addressed in the future.

Ultimately, by proactively planning for recreation on a variety of levels, elevating the importance and relevance of recreation in planning discussions, recreation interests and the citizens of Colorado can help preserve and enhance outdoor recreation opportunities. These efforts will also help facilitate the development of communities that support active lifestyles with an abundance of parks, trails, and open space.

6.6.1 Local Planning Efforts

Recreation is typically integrated as a single, optional component within local municipal or county comprehensive plans. As of 2004, about 49% of all of Colorado's counties had a recreation component integrated within their comprehensive plan.[71] Some municipalities or counties also have stand alone park, trail, and/or open space plans that help guide recreation planning at the local level as well.

[70]"Urban Park and Recovery Program." National Park Service. 18 May 2008 <http://www.nps.gov/uprr/>.
[71]2004 County Land Use Survey. Colorado Counties, Inc. 2004.

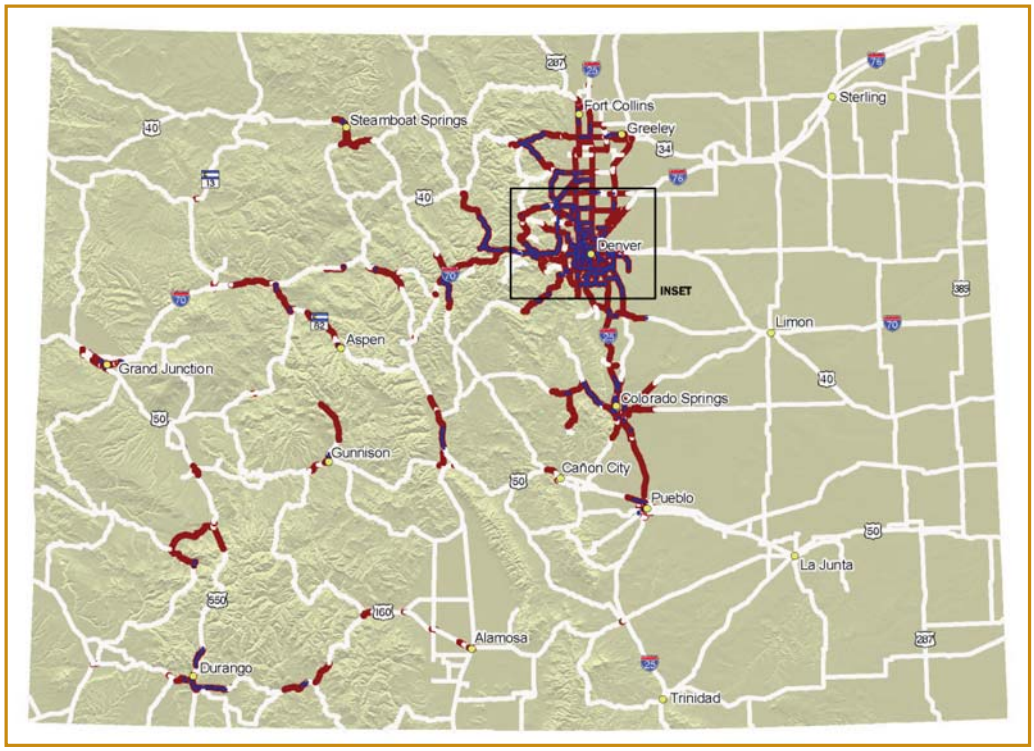
According to the 2007 SCORP Local Government Survey, about 42% of respondents stated that their agency had a park, trail, or open space master plan. While almost one out of every two local governments are considering recreation within the context of long-range planning efforts, recreation deserves additional attention at the local planning level. Also important is the need for communities to work more closely with one another to collaboratively plan recreation opportunities for regional parks, open spaces, and trail networks to facilitate connectivity.

6.6.2 Regional and Statewide Planning Efforts

Transportation Planning

State and federal agencies, by their nature, typically must plan across jurisdictional boundaries in the context of numerous regional and statewide planning efforts. As such, they play an important role in accounting for local recreation needs and issues within the context of achieving wider planning goals. For example, the Colorado Department of Transportation (CDOT) updates regional transportation plans every five years to help guide regional road construction and maintenance efforts. Increasingly, these plans are considering the needs of local communities for expanded pedestrian routes, bicycle lanes, and other non-motorized motility options. These alternative modes of transportation, which are also outdoor recreation activities, are particularly important considering the congestion projections anticipated by CDOT by 2030 (Map 19).

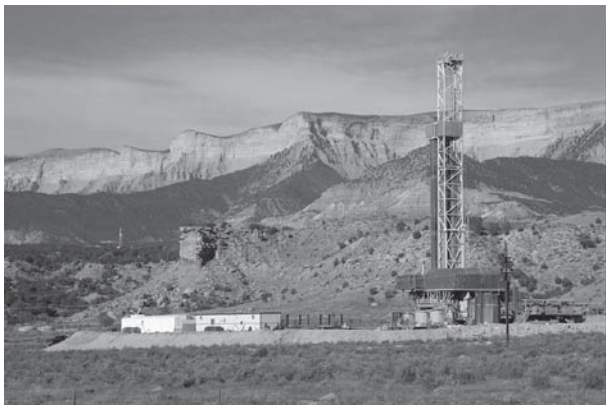
Map 19: ***CDOT 2030 Congestion Map***



Colorado Tourism Planning

Colorado's tourism industry continues to play a significant role in the state's economy, generating about $9.8 billion in travel revenues, according to a Longwoods International report commissioned by the Colorado Tourism Office (CTO).[72] A significant portion of Colorado's tourism economy is reliant on our outdoor recreation resources and public lands. Outdoors trips, touring trips, and skiing trips accounted for about seven million overnight visitors (about 30% of the all overnight visitors) in 2006.[73] In recognition of this correlation, many tourism industry professionals, outdoor recreation professionals, and public land managers regularly coordinate on statewide tourism issues.

Oil and Gas Exploration



One of western Colorado's most recent and pressing issues potentially affecting outdoor recreation has to do with increased gas exploration. In Garfield County alone, 15,000 additional wells are expected in the next 10 years.[74] Numbers of drilling rigs, which serve as another measure of increased drilling activity, have increased to 130 in September 2007 (up from about 28 in 2002). As of 2007, these rigs have drilled some of the 33,087 active oil and gas wells in the state.[75]

Much of this drilling activity has taken place on federal lands, but significant drilling activity occurs on private lands as well. As part of the Colorado Oil and Gas Conservation Commission's updated drilling rules, operators must consider the impacts to human health, safety, welfare, and the environment (including wildlife habitat) on public and private lands. These regulations outline the need to involve numerous stakeholders, require public comment periods, and take a landscape, or regional, approach to where each oil or gas well may be placed. Overall, the updated COGCC regulations are designed to encourage proactive, collaborative planning, and generate more win-win solutions. In spite of these rules, some sportsmen's groups remain concerned about the long-term implications of increased gas exploration activity on fishing and hunting.

Recreation Planning and NEPA

Recreation considerations are already an important consideration in many large-scale planning projects that require federal funding, or are classified as a federal action and are subject to detailed analysis [e.g., Environmental Assessment (EA) or Environmental Impact Statement (EIS)] as required under the 1972 National Environmental Policy Act (NEPA). For example, potential projects like major highway improvements or large municipal water projects need to be permitted under NEPA and develop an EA or EIS that discloses and evaluates the direct, indirect, and cumulative effects related to a range of social and natural resources (including recreation resources).

[72]"Colorado Travel Year 2007." Colorado Tourism Office. Longwoods Intl. 09 July 2008 <http://www.colorado.com/data/docs/CO%202006%20Final%20Report%20Online%20Version.ppt>.
[73]"Colorado Travel Year 2006." Colorado Tourism Office. Longwoods Intl. 09 July 2008 <http://www.colorado.com/data/docs/CO%202006%20Final%20Report%20Online%20Version.ppt>.
[74]Martin, John. "Oil and Gas Exploration in Garfield County." Garfield County. 8 July 2008. <http://www.dola.state.co.us/osg/docs/OilGas_Martin.pdf>.
[75]Proctor, C. "Working Drilling Rigs Hit Record in State." Denver Business Journal 28 Sept. 2007.

In the case of a large, regional transportation project like the Interstate 70 highway corridor expansion, a detailed EIS would likely outline effects to recreation on lands not only within the proposed development areas, but also lands adjacent to the corridor, and possibly important regional recreation destinations (such as ski resorts). As part of the EIS, recreation interests also would be invited to provide input and comment on recreation issues during a formal public input or "scoping" process. Many believe that it is critical that the recreation and tourism interests play an active role in informing these types of planning processes.

Active Living and Smart Growth Planning Initiatives

An unprecedented movement in Colorado is underway to improve public health by designing and planning "healthy" communities that encourage and facilitate physical activity. The Active Community Environments (ACE) Task Force, under the direction of the COPAN Coalition, within CDPHE, aims to create more active living through "smarter" community design. Changes in the built environment can positively impact behaviors and provide public health benefits. The ACE Task Force strategies are outlined in section 6.4.1. Successful implementation of these strategies will require building local partnerships that can be sustained, using best practices that involve multi-sectoral community programs and resources, enacting environmental and policy changes, and regularly evaluating and refining efforts.[76] Other ongoing active living and smart growth planning initiatives relevant to this issue include:

- In Denver, the Metro Denver Health and Wellness Commission is working to make Metro Denver America's Healthiest Community by promoting programs and policies that improve physical, environmental and mental health across all sectors of our community.

- Communities also benefit from Colorado's Office of Smart Growth which is housed within the Department of Local Affairs (DOLA). The Office of Smart Growth provides expertise to local governments in the areas of land use planning, developing a master plan, and growth management. Workshops and direct technical and financial assistance are available.

[76]"Active Community Environments Task Force." COPAN, CDPHE. 14 May 2008 <www.cdphe.state.co.us/pp/copan/activecommunity/activecommunityenvstrategies.html>.