Community participants:

As members of the Wasatch Canyons Tomorrow Executive Committee, we would like to thank all of you for participating in the Wasatch Canyons Tomorrow process. As government agencies dedicated to the management and care of the seven major canyons in Salt Lake County, we deeply appreciate the work and countless hours members of the community have dedicated to the process. The number of involved citizens proves the important role the canyons play in this community and it further drives us to keep these lands protected and accessible for future generations.

Each of us has a different role in the management of the canyons. Our collective obligations highlight the need to continue a high level of ongoing collaboration in our management. Because of our responsibilities and the essential need for collaboration, we were each very engaged in the Wasatch Canyons Tomorrow visioning process.

Our intention with the Wasatch Canyons Tomorrow process was to create a public dialogue where your voice would be heard regarding the future of these canyons. The values you have voiced, and the input you have provided during this process are vital to us as we engage in future policy choices, planning, and decision-making.

The Wasatch Canyons Tomorrow report gives us a thoughtful menu of recommendations for projects, best management practices, and policies to be considered as we confront current and anticipated challenges in the management of the Wasatch Canyons. Some of these recommendations can be considered for implementation relatively quickly. We also recognize that consideration of many of these recommendations will need future study and evaluation to determine their feasibility, environmental impact, compliance with federal, state and local laws, and compliance with existing management plans.

The driving force behind the commencement of Wasatch Canyons Tomorrow was the recognized need to update the 1989 Salt Lake County Wasatch Canyons Master Plan. Therefore it is fitting that the publication of this report precedes and informs Salt Lake County’s Wasatch Canyons Master Plan Update, anticipated to begin this coming winter. Of particular note, and consistent with your input in the Wasatch Canyons Tomorrow process, Salt Lake County will engage the community in its administration of its Foothills and Canyon’s Overlay Zone ordinance. The US Forest Service, Salt Lake City Department of Public Utilities, Town of Alta, State of Utah, and Utah Transit Authority will also look to this report to inform our work and to guide our collaboration.

Again, thank you for your time and efforts. We look forward to working with all of you in the coming months and years. Together, we can chart the future of the Wasatch Canyons for today and for tomorrow.

Regards,

Gary Herbert, Governor
State of Utah

Peter Corroon, Mayor
Salt Lake County

Ralph Becker, Mayor
Salt Lake City

Brian Ferebee, Supervisor
Uinta-Wasatch-Cache National Forest

Mike Allegra, General Manager
Utah Transit Authority

John Thomas, Planning Director
Utah Department of Transportation

Tom Pollard, Mayor
Town of Alta

September 2010
Executive Committee Members

Tom Pollard
Mayor, Town of Alta

Ann Ober
Salt Lake County Mayor’s Office

Laura Briefer
Salt Lake City Public Utilities

Mike Allegre
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Cathy Kahlow
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Ski Utah

Mike Goar
The Canyons Ski Resort

Dan Knopf
Silver Fork Lodge

Margo Provost
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Mayor, Park City

Sally Elliott
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Metropolitan Water District of Salt Lake and Sandy

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Utah State Senate

Rolyane Fairclough
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Ted Wilson
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David Gellner
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Paul Dremann
Governor’s Blue Ribbon Fisheries Advisory Council

Wendy Fisher
Utah Open Lands

Rusty Dassing
Utah Powderbird Guides

Sarah Bennett
Friends of Emigration Canyon Trails & Open Space and Salt Lake County Open Space Committee

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Wasatch Back Environmental Alliance

Jennifer Clancy
Friends of Alta

Liane Stillman
Cottonwood Heights

Polly Hart
COG

Shane Pace
Sandy City Public Utilities

Will McCarvell
Wasatch Mountain Club

Chuck Chappell
Wasatch Front Regional Council

Dave DeSelmhorst
Solitude Resort

Kate Bradshaw
Friends of Utah Avalanche Center

John Fairchild
Division of Wildlife Resources

Jennie Walters
Cottonwood Canyons Foundation

Dave Fields
Snowbird Ski and Summer Resort

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MountainTails.org

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Mountaintop Development Services

Steve Scheid
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Steve Scheid
U.S. Forest Service

Cover image courtesy Howie Garber/Wanderlust Images. Report photos by Elizabeth Pedersen and Edward Cusick unless otherwise specified.
The Wasatch Mountains rise majestically over the eastern edge of the Salt Lake Valley, our region’s geographical hallmark. Historically, the mountains sustained early settlers, providing needed timber, irrigation water, drinking water and ore. They still sustain us today. The Wasatch Mountains serve both public and private purposes. Nearly a million people live in their embrace. In an arid climate, they provide much of our drinking water. They are home to many canyon residents. Their towering peaks catch the greatest snow on earth, supporting a world-class ski industry that feeds our economy. They are our backyard, a place where we can find peace in quiet backcountry or engage in active recreational activities such as hiking, biking, climbing, fishing, skiing, picnicking and camping. In fact, the Unita-Wasatch-Cache National Forest is among the five most-visited forests in the nation. The mountains adorn our tourism campaigns, postcards, and the logos of businesses, cities and sports teams. To a large degree, the Wasatch Mountains define our region. We are now presented with the task of defining the future of these treasured mountains.

By some credible estimates, there will be 3 million people in the Salt Lake Valley by the turn of the next century. Inevitably, this growth will further stress mountain resources. Each canyon in the study area is environmentally sensitive and limited in its ability to sustain use-impacts. Looking ahead, one can imagine a range of future possibilities for the Wasatch Canyons from natural areas, to amenity-rich resorts, to something in between. We cannot escape the fact, however, that our decisions or failure to make decisions will determine that future.

Finding a balance on the desired future is not easy. Needs and uses vary. Cyclists enjoy the beauty and challenge of riding in the canyons, but find the narrow roads fraught with peril. Others foresee expanding our world-class ski resorts and terrain to rival any in the world, generating substantial economic activity. Some private landowners have dreams of developing their land and feel that their property rights are overly constrained. Yet many residents warn that increased development and use will degrade the quality and quantity of our water supply. Many people enjoy escaping the valley, but find cherished solitude ever more elusive. Most are concerned with increasingly congested mountain roads, but differ over the appropriate solution. Add to these a host of other issues: invasive weeds, fiscal impacts, dogs, access to backcountry skiing, climate change impacts, connections to Summit County, wildlife impacts, and more.

Despite differing perspectives, four things are clear. First, our water supply is the lifeblood of our community. The Wasatch Canyons provide most of our water now and will continue to do so in the future. Our activities in the watershed must give careful consideration to how water supplies and quality are affected. Second, there is broad consensus that our mountain canyons are a highly valued resource worthy of our care and attention. Third, defining strategies to solve canyon challenges will be found through continuing open communication, sound research, and simple hard work. And fourth, because of continuing population growth, we likely will have to modify some past policies over time to maintain desired conditions. Doing what we have done in the past will not necessarily keep the canyons as they are in perpetuity. Our collective challenge is to identify what we most value about the canyons and explore solutions that protect those values.
Wasatch Canyons Tomorrow employed a public process to identify contemporary concerns and to educate the public on canyon issues. The recommendations in this report are the product of the public process. They are not necessarily recommendations from Envision Utah or the Project partners. Adoption of recommendations contained in this report will require approval by appropriate agencies. Recommendations within the jurisdiction of Salt Lake County are subject to review by the Salt Lake County Council and County Mayor through a separate Master Planning process prescribed in the County Code. Some of these recommendations may be implemented quickly; others may be considered later in the life of the County-adopted Master Plan. This process may also provide insight to transportation agencies, the Uinta-Wasatch-Cache National Forest, and Salt Lake City Public Utilities, as they plan and address issues within their respective jurisdictions.

What follows is the product of extensive research; dozens of site visits to understand terrain, conditions, conflicts and challenges; and, most importantly, a community conversation in which thousands shared their experiences, ideas, and dreams. May future generations benefit from this effort.

Scope and Study Boundaries


The Wasatch Canyons Tomorrow study-area includes the seven major canyons on the eastern side of Salt Lake County and their smaller adjoining canyons. These include Little Cottonwood, Big Cottonwood, Millcreek, Parleys, Emigration, Red Butte and City Creek Canyons as well as smaller canyons such as Bell Canyon, Neffs Canyon, Lambs and Deaf Smith Canyon. The study area is multi-jurisdictional in its governance, with most of the lands under federal ownership and managed by the US Forest Service.
City Creek Canyon
Emigration Canyon
Red Butte Canyon
Parleys Canyon
Millcreek Canyon
Big Cottonwood Canyon
Little Cottonwood Canyon
Executive Summary

The Wasatch Canyons Tomorrow process was designed to create a broadly supported public vision and guiding principles for the future of the Wasatch Canyons within Salt Lake County. This document addresses challenging issues, and outlines approaches to those issues that minimize the impacts of growth on our treasured canyons. The State of Utah, Salt Lake County and Salt Lake City jointly sponsored this process, in partnership with the Uinta-Wasatch-Cache National Forest. Salt Lake County acted as the lead partner with Envision Utah serving as the process facilitator.

Envision Utah conducted a public process to assess what the citizens of Utah value about the Wasatch Canyons. Extensive public outreach efforts for the Wasatch Canyons Tomorrow project included open houses, workshops and on-line surveys. After a kick-off meeting to announce the project, the public participated in workshops hosted throughout Salt Lake County. Stakeholders and technical experts served on Steering and Technical Committees to ensure process integrity and that the recommendations accurately reflect public input. The recommendations included in this document will act as guiding principles for the revision of the Salt Lake County Master Plan. While these recommendations represent a broadly supported vision, they are not binding, and Salt Lake County and other entities with jurisdiction in the canyons may review them further for technical, legal, environmental and financial feasibility.

According to the Utah Governor’s Office of Planning and Budget, the State of Utah is projected to grow from about 3 million people in the year 2010 to over 5 million people in the year 2040. Likewise, Salt Lake County’s population is expected to grow dramatically in the next 30 years. With the growth in population, the pressures and demands on the canyons and their natural resources, especially water supply, will be greater.

Land Use

Throughout the Wasatch Canyons Tomorrow process, the public expressed a desire to adopt strategies for efficient development in suitable areas and away from critical lands for watershed, recreation, wildlife and scenery.

Land-Use Goal Statement:

Prioritize protection of high-priority lands (such as watershed, viewshed, recreation areas, and wildlife habitat), while respecting private property rights.

The following publicly supported recommendations support the land-use goal statement:

1. Enforce existing provisions of the Foothill and Canyon Overlay Zone (FCOZ). Restrict variances that circumvent these protections.
2. Increase funding for the purchase of high-priority lands.
3. Work with the State Water Quality Board to fund revolving loans to incentivize upgrading septic systems or to pay for connections to sewer lines.
4. Study strategies to incentivize development in appropriate areas and to preserve open space (for watershed, recreation, scenic value and wildlife).
Recreation

The popularity of outdoor recreation continues to grow with the population. This trend shows no signs of slowing. In fact, the number of recreational visits to the Wasatch Mountains will likely double in the next 30-40 years. Winter or summer, high-quality outdoor recreation is something that Utahns prize as part of the quality of life we enjoy.

Recreation Goal Statement:

Offer diverse, high-quality recreation experiences while protecting the natural resources of the Wasatch Canyons.

The following publicly supported recommendations support the recreation goal statement:

1. Study the feasibility of a parking pass to pay for improvements to recreational areas in Big and Little Cottonwood Canyons.
2. Acquire strategic land and/or easements for recreation access.
3. Conduct a Capacity Study for trails in the Wasatch Canyons.
4. Develop a Master Trails Plan to explore regional trails and trail connections for appropriate uses.
5. Further pursue recommendations of the Emigration Trails Master Plan.
6. Maintain and enhance winter avalanche safety.
7. Develop a Climbing Management Plan for Big and Little Cottonwood Canyons to address the needs of the climbing community.
8. Encourage cooperation among the resorts, Salt Lake County, U.S. Forest Service, Salt Lake City, and other partners to explore appropriate year-round activities at the ski resorts.
9. Promote lesser-used recreation areas in Salt Lake County to provide alternatives to the more-used recreation areas in the Wasatch Canyons.

Transportation

Significant growth of the population in the next 30 years and the anticipated corresponding growth in recreational visits to the Wasatch Canyons presents a potential major strain on the existing transportation network. Addressing transportation issues while protecting the watershed and natural environment is among the most important questions for the future of our Wasatch Canyons.

Transportation Goal Statement:

Transportation projects should reduce congestion, improve air quality, and facilitate access and public safety, while maintaining our high-quality recreational experience and protecting natural resources.

The following publicly supported recommendations support the transportation goal statement:

1. Expand from winter-only to year-round transit service in Big and Little Cottonwood Canyons.
2. Continue to look for and promote ways to improve road-cycling safety for both transportation and recreation.
3. Prepare and implement updated road corridor avalanche control plans for Big and Little Cottonwood Canyons.
4. Study the feasibility of extending UTA TRAX to a “transit hub” at the mouth of Big Cottonwood Canyon or Little Cottonwood Canyon to serve shuttles and buses to Millcreek, and Big and Little Cottonwood Canyons.
5. Develop Express Bus transit service between downtown Salt Lake City and Summit County/Park City.
6. Conduct a feasibility study of extending a mountain rail line up Little Cottonwood Canyon to Snowbird and Alta.
7. Study the feasibility of alternative transportation for Millcreek Canyon.
8. Implement recommendations from the Big and Little Cottonwood Canyon Corridor Management Plan.
Area History

The process of crustal extension created the Wasatch as we see it today. A spreading plate that separates the area between the Sierra Nevada Mountains of California and the Wasatch Range lifted the mountains. Glaciation and stream erosion created the canyons of the Wasatch. More recently, Lake Bonneville left shoreline ridges along the canyon walls. Remnants of the lake can be seen in the deltas that still exist at the base of Parleys and Big and Little Cottonwood Canyons.

Long before Euro-Americans entered the Great Basin, substantial numbers of people lived within the present boundaries of Utah, including in and around the Wasatch Canyons and mountains. Archaeological evidence suggests human habitation stretching back at least 12,000 years. These people moved throughout the area hunting game and gathering vegetation in the slightly cooler temperatures of the canyons.

Spanish explorers first viewed the mountains in 1776 when Fathers Dominguez and Escalante traversed the range, exiting near present-day Spanish Fork. The next recorded entry into the Wasatch Mountains was during the early 1800s by fur trappers and traders. European settlement of the Salt Lake Valley began in 1847 with the first wave of Mormon Pioneers. Once established in the area, the pioneers managed the Wasatch watershed under stewardship of prominent church leaders. In 1850, Utah became a territory, and county courts assumed jurisdiction over canyon resources.

These canyons played a critical role by providing the water resource to the Salt Lake Valley beginning with the settlement of the pioneers. The water supply from the watersheds made the development, growth and prosperity of the Salt Lake Valley viable. Protection of these watersheds helps to ensure the future security of the valley.

By the 1870s, mining had begun, especially in the higher elevations of Big and Little Cottonwood Canyons. The silver boom caused the town of Alta to swell to more than 1,000 residents. Similar operations existed in Big Cottonwood and Parley’s Canyons. Mining brought the first major wave of residences to the canyons, and many existing parcels of private land stem from mining claims.

The Salt Lake Forest Reserve was established in 1904 for long-term protection of Salt Lake City’s water supply and to reforest the canyon areas, which had been heavily impacted by logging, mining and livestock grazing. In 1905, all federally managed forests were transferred to the U.S. Forest Service.

Ski area development in the Wasatch began in the 1930s. Both Alta and Brighton Resorts installed ski amenities as more residents of the Salt Lake Valley began looking toward the canyons for recreation and rejuvenation. Since then, the Wasatch has become a local treasure and a world-class destination for hiking, climbing and skiing.
Land Use and Development

2,708 acres of developed parcels
11,989 acres of undeveloped parcels
Canyon Descriptions

City Creek Canyon’s proximity to downtown Salt Lake City makes it popular with hikers, cyclists and walkers. Salt Lake City owns a majority of the land and manages it as a protected watershed and as a nature preserve. Picnicking is a popular activity in the developed picnic sites in the canyon. The City Creek Canyon watershed provides 6% to 8% of Salt Lake City’s water supply. This canyon is closed to motor vehicles on odd-numbered days and closed to cyclists on even-numbered days. There is no off-road cycling in City Creek Canyon. Dogs are not allowed above picnic area #16.

Red Butte Canyon is mostly federally-owned and protected as part of the Unita-Wasatch-Cache National Forest. The area is managed as a Research Natural Area and has been closed to the public since the early 1900s. The area remains one of the most pristine in the Wasatch Mountains. Red Butte is the smallest of the seven canyons, with a drainage area of 7.25 square miles and an average annual water yield of 2,400 acre/feet. Red Butte Canyon watershed is not currently used for drinking water supply.

Emigration Canyon has become a significant recreation area in recent years. Hikers and cyclists have found that the proximity of the canyon to Salt Lake City is very convenient. A large percentage of the land in Emigration Canyon is privately held. Salt Lake County manages Emigration Canyon Road. Water from Emigration Canyon is generally used for irrigation purposes and supplies about 2% of Salt Lake City’s drinking water. Dogs are allowed in this canyon.

Parleys Canyon contains a major interstate transportation corridor (I-80), which provides connection between Salt Lake County and Summit County. The Federal Highways Administration (FHWA) controls I-80. Parleys Canyon also includes many recreational facilities such as golf, camping, hunting, cycling and hiking. Both Little Dell and Mountain Dell Reservoirs store water in this canyon. The Dell and Lambs Canyon sub-drainages feed these two reservoirs and the Parleys water treatment plant. The Dell and Lambs Canyon drainages are protected watersheds and provide about 7% to 10% of the water supply to Salt Lake City.

Millcreek Canyon is heavily used for recreational activities such as cross-country skiing, cycling, snowshoeing, picnicking and hiking. It is one of the few areas in the Wasatch where horseback riding is allowed. This is the only canyon in the study area that collects user fees. Upper trails are closed to off-road cyclists on odd-numbered calendar days and dogs are allowed off-leash on trails on odd-numbered calendar days. Millcreek is not currently a drinking water source, but could become a drinking water source in the future. Some water from Millcreek is used for irrigation purposes.

Big Cottonwood Canyon contains wilderness areas, camping sites, picnic sites, numerous trails and Brighton and Solitude ski resorts. Runoff from this canyon accounts for 22% to 24% of the water supply for Salt Lake City Public Utilities’ service area. Land in this canyon is predominantly held and managed by the U.S. Forest Service and private parties. Popular for recreation, this canyon is known for cycling, hiking, skiing, climbing, picnicking, camping and fishing. Big Cottonwood Canyon is a protected watershed. The Utah Department of Transportation (UDOT) manages SR-190, the main canyon road. The Utah Transit Authority (UTA) currently offers seasonal bus service to the ski areas. For watershed protection, no dogs or horses are allowed in this canyon.

Little Cottonwood Canyon is the southern-most canyon in the study area. The upper canyon area houses both Snowbird and Alta Resorts. Predominant recreational uses include rock climbing, hiking, cycling, skiing, camping and picnicking. The area provides 12% to 14% of the water supply to Salt Lake City Public Utilities’ service area and 30% of the water supply to Sandy City. The land is primarily public, managed by the U.S. Forest Service, but there are many private inholdings. UDOT manages SR-210, which is located in the canyon. UTA currently offers seasonal bus service. SR-210 is one of the most avalanche-prone transportation corridors in the country. For watershed protection, no dogs or horses are allowed in this canyon.

### Area Wide Land Ownership

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Acres</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Forest Service</td>
<td>78,893</td>
<td>65%</td>
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<tr>
<td>Salt Lake City</td>
<td>23,773</td>
<td>19%</td>
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<tr>
<td>Salt Lake County</td>
<td>268</td>
<td>0.2%</td>
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<tr>
<td>Private</td>
<td>24,589</td>
<td>19%</td>
</tr>
<tr>
<td>Total</td>
<td>127,937</td>
<td>100%</td>
</tr>
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</table>
Watershed and Environment

The provision of clean and reliable drinking water is the most widely utilized benefit of the range. Under federal law, watershed protection is the top management priority in the National Forest. A growing body of research suggests that source protection—maintaining the health of the functioning watersheds—is critical to protecting water quality and quantity and controlling treatment costs. Treatment-only approaches in other parts of the country have led to poor water quality and put the public at risk of treatment failures.

Salt Lake County Foothills and Canyon Overlay Zone (1997)

The Salt Lake County Foothills and Canyon Overlay Zone Ordinance (FCOZ) was officially adopted in 1997. It came about partially as a result of the 1989 Canyons Master Plan and replaced the County’s Hillside Protection Zone. The Ordinance applies to all land in unincorporated areas of Salt Lake County with slopes over 30%.

The general purposes of FCOZ are to:

- Provide an area-specific zoning structure that is adapted to meet the needs of an ecologically sensitive area.
- Ensure a more harmonious relationship between development and the natural environment to preserve the natural character of the foothills and canyons.

Land-use approvals on properties within FCOZ involve a multi-agency review process during which the County Planning office works with the Salt Lake Valley Health Department, the Salt Lake City Department of Public Utilities, the U.S. Forest Service and other agencies to ensure that all developments within the foothills and canyons meet certain standards.

Salt Lake City Watershed Management Plan (1999)

The Salt Lake City Watershed Management Plan was adopted in 1999 to preserve the water quality in the Salt Lake City watershed area. The plan focuses on watershed management in the seven Wasatch Canyons in Salt Lake County. The watershed comprises the waters of the creeks, the surrounding lands within the drainage, and the groundwater recharge areas for the Salt Lake Valley. General Salt Lake City Watershed Management Plan recommendations include:

- Review of residential and commercial development for any project that may affect water quality.
- Continued education regarding the use of water and protection of water quality.
- Management strategies for dispersed recreation and its enforcement.
- Innovation in land and water rights acquisition and ideas for expanding partnerships.
- Continued and refined fire management and garbage collection.
- Continued water-quality monitoring.

### Average Annual Water Yield Per Canyon (Acre/Feet)

<table>
<thead>
<tr>
<th>Creek</th>
<th>Water Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Cottonwood</td>
<td>51,532</td>
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<tr>
<td>Little Cottonwood</td>
<td>46,149</td>
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<tr>
<td>Parleys</td>
<td>18,131</td>
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<tr>
<td>City Creek</td>
<td>11,749</td>
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<tr>
<td>Millcreek</td>
<td>10,762</td>
</tr>
<tr>
<td>Emigration</td>
<td>4,939</td>
</tr>
<tr>
<td>Red Butte</td>
<td>2,450</td>
</tr>
</tbody>
</table>

### Watershed Area (Square Miles)

<table>
<thead>
<tr>
<th>Creek</th>
<th>Area (Square Miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parleys</td>
<td>50.1</td>
</tr>
<tr>
<td>Big Cottonwood</td>
<td>50.0</td>
</tr>
<tr>
<td>Little Cottonwood</td>
<td>27.4</td>
</tr>
<tr>
<td>City Creek</td>
<td>19.2</td>
</tr>
<tr>
<td>Millcreek</td>
<td>18.0</td>
</tr>
<tr>
<td>Emigration</td>
<td>18.0</td>
</tr>
<tr>
<td>Red Butte</td>
<td>7.3</td>
</tr>
</tbody>
</table>
Salt Lake Countywide Water Quality Stewardship Plan (2009)

The plan encompasses 30 rivers and streams draining from the Wasatch and Oquirrh Mountains as well as Utah Lake. The County lists four goals for water stewardship including water quality, hydrology, habitat and social services. In support of these goals, the County has outlined several tasks. Both the goals and the tasks set forth by the County support the following seven strategic water targets:

- Reduce pollutant loads to improve water quality on the Salt Lake Countywide Watershed sufficient to support aquatic habitat, water supply and social functions.
- Develop regional wastewater planning procedure requirements to enhance, improve and protect water quality functions.
- Evaluate and prioritize the effects of Utah Lake outflow and diversion canals on water quality and flow by developing optimized management protocols that will enhance and protect water quality, habitat and hydrologic functions.
- Improve and protect wetlands and stream bank stability to prevent degradation from erosion and sediment transport to protect water quality, habitat, and hydrologic functions.
- Increase stream corridor and watershed recharge area preservation to improve habitat, social, recreation and water-use functions.
- Increase in-stream flows under normal and drought conditions to support aquatic habitat and recreational functions.
- Identify funding mechanisms for plan implementation, long-term watershed monitoring, and on-going adaptive management.

Species of Concern Sensitive Habitats

Habitat areas are important to maintain healthy wildlife. Diversity of vegetation is required by numerous wildlife species that depend on specific conditions to meet their life needs. Contiguous habitat areas are important so animals can move freely without interruption. The State of Utah Department of Natural Resources manages Utah’s wildlife habitat. While all habitats are important, the following habitats provide food, shelter, and space to the designated State Species of Concern.

**Mountain Riparian** - Above 5,500 feet in elevation along streams, vegetation creates a streamside habitat called mountain riparian habitat. Although the streams often are rocky and cold, their habitats are very productive and support a diversity of life. Despite their importance as a wildlife habitat, the quality of Utah’s mountain riparian habitats is declining. A variety of human activities have combined to threaten several important wildlife species that call Utah’s mountain riparian habitats home. Species of Concern that rely on this habitat include the Bonneville Cutthroat Trout, Western Toad, and the Black-billed Cuckoo.

**Aspen Forests** - Also called quaking aspen for the way their leaves quiver in breezes, aspen trees and the forests they create are as scenic as they are important for wildlife. Each fall, aspen leaves turn bright yellow, attracting tourists to Utah’s mountains. Although few other trees inhabit the aspen forest, these areas are home to a wide variety of shrubs and wildflowers that fill the forest floor. In turn, this diversity of plant life supports an array of wildlife. Changes in natural fire cycles and other disturbances, however, are making aspen forests increasingly rare across Utah. Without disturbances to open up the forest and help the aspens spread, spruce and fir forests are quickly overtaking aspen forests. Species that rely on this habitat include the Northern Goshawk, Mexican Vole, and Williamson’s Sapsucker.

**Mountain Shrublands** - As dry pinyon-juniper woodlands give way to cooler, higher-elevation forests, mountain shrub habitats form a transition zone. From about 3,000 feet to 9,500 feet in elevation, these shrublands are home to small trees and shrubs that provide a rich source of food and abundant cover for a wide variety of Utah’s wildlife. Mountain shrub habitats are home to plants that produce serviceberries, choke cherries, acorns and a variety of other foods that support birds. Species that rely on this habitat include the Rocky Mountain Snail, Mule Deer, and Black-throated Gray Warblers.

**Wet Meadows** - Like grasslands, wet meadows are home to grasses and sedges and few, if any, trees. But, unlike grasslands, wet meadows are saturated with water during most of the year. Occurring between about 3,300 feet and 9,800 feet in elevation, wet meadows are uncommon in Utah. But where they do occur, a wide variety of plants and wildlife have adapted to take advantage of the wet conditions. Unfortunately, these habitats are declining across the state, and the wildlife that calls them home is becoming increasingly threatened. Species that rely on this habitat include the Columbia Spotted Frog, Smooth Greensnake, and the Common Gartersnake.
The 2003 Wasatch-Cache National Forest Plan

Watershed protection in our canyons goes back to the reservation of the Wasatch National Forest in 1904. The driving purpose for the reservation of the National Forest, as indicated in legislation and remarks made by the Forest Chief, Gifford Pinchot, was the protection of Salt Lake City’s water supply. In 1905, a tree nursery was established at today’s Spruces Campground to begin restoration of canyon areas that had been affected by mining and timber harvesting. Over the next several decades, the Forest Service management of resources expanded. In 2007, the Uinta National Forest merged with the Wasatch-Cache National Forest. The forest is now managed as one unit, the Uinta-Wasatch-Cache National Forest. As part of a national strategy for managing U.S. forests, the Forest Service prepared the Forest Plan for the Wasatch-Cache National Forest in 1985. Most recently revised in 2003, the Plan lays out four major goals: ecosystem health, multiple benefits to people, scientific and technical assistance, and effective public service. These goals are consistent with the Forest Service’s conservation mission of “caring for the land and serving the people.”

In addition to ecosystem management, the Revised Forest Plan outlines forestwide goals, including summer and winter recreation opportunities, management prescriptions, and monitoring and evaluation requirements. The Plan includes area-specific direction and maps with desired future conditions. The Forest Service uses many different designations for the land pertaining to wildlife, forest ecology, and land use. These designations inform where such uses as mining, grazing, restoration, and recreation are allowed to occur in the forest. The Wasatch-Cache Forest Plan covers about two million acres of federal land, while approximately two hundred thousand of those are in the study area. Approximately 62% of the total land included in the study area are U.S. Forest Service-managed lands, making the Forest Service a key member of any decision-making process.

Available Online At
http://www.fs.fed.us

WCNF Forest Service Management Prescription Area Map Legend

Wasatch-Cache National Forest Revised Forest Plan

---

**Existing Wilderness**

1.1 - Opportunity Class I
1.2 - Opportunity Class II
1.3 - Opportunity Class III

**Special Management Areas**

2.4 - Research Natural Areas
2.6 - Undeveloped Areas
2.7 - Special Interest Areas

**Multiple Resource Use, Recreation Emphasized**

4.1 - Backcountry Non-Motorized Emphasis
4.5 - Developed Recreation Areas Emphasis

**Protection, Maintenance or Restoration of Biophysical Resources**

3.1a - Aquatic Habitat Emphasis
3.1w - Watershed Emphasis
3.2d - Terrestrial Habitat Emphasis-Developed
3.2u - Terrestrial Habitat Emphasis-Undeveloped

**General Map Icon Legend**

- State and Department of Defense Lands
- Private Lands
- 2002 Roadless Inventory with Road Cherry-stems
- Roads
- Motorized Trails
- Management Area Boundary
- Trails
Climate Change

Researchers throughout the Rocky Mountains are documenting environmental impacts resulting from climate change. While the cause of climate change may be debated, its impacts cannot be ignored. As decision-makers establish policies concerning the future of the Wasatch Canyons, they should keep in mind the implications of climate change and adopt policies that are adaptable to changing environmental conditions. Being able to deal effectively with climate change may be one of the most significant issues facing the canyons in the coming years. While predicting the course of complex systems is inherently uncertain, examples of conditions that may arise in the canyons due to climate change include:

- A greater possibility of recurring drought seasons. Multiple drought seasons could result in less runoff, dry streambeds, a change in the vegetation, fish and wildlife loss, and declining groundwater levels.
- A modified hydrologic cycle. The amount of high-elevation snowpack, and the timing of snowmelt may change runoff patterns, possibly leading to flood events.
- As temperatures rise, we could see wildlife and habitat begin to shift to higher elevations.
- Winter precipitation will likely include more rain and less snow. Winter recreation that occurs at lower elevations may no longer be possible.

Recreation in the Canyons

There is a wide variety of developed and dispersed recreational opportunities within the Wasatch Canyons, such as skiing, mountain biking, hiking, jogging, sightseeing, fishing, and hunting. These recreational opportunities add significantly to the quality of life for residents. Without question, as the population of the Salt Lake Valley and Utah continues to grow, the demand for these recreational uses will also grow in this ecologically sensitive and limited geographical area.

According to a study by Professor Arthur C. Nelson at the University of Utah College of Architecture and Planning, ski visits in the Wasatch Canyons are expected to double by 2050 and almost triple by 2100 (See Ski Visits Table on page 16). These estimates are independent of any possible effects climate change may have on the ski industry or the ability of the transportation network to serve the increased number of skiers. Nordic skiing, ice climbing, snowshoeing and other winter activities can also be expected to increase.

Dr. Nelson's projections paint a similar picture for non-winter site visits to the Wasatch Canyons. Total site visits more than double from 2003 to 2050 and increase by more than three times from 2003 to 2100. Visits for individual activities reflect much the same increase. A doubling of recreational visits to the Wasatch in the next 40 years presents a major potential strain on the quality of experience, habitat, watershed, and the existing transportation network.

### Estimates of Non-Winter-based Site Visits by Venue in the Wasatch: 2030, 2050 and 2100 (figures in thousands)

<table>
<thead>
<tr>
<th>Site Visit Venue</th>
<th>2003</th>
<th>2030</th>
<th>2050</th>
<th>2100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed Campground</td>
<td>107</td>
<td>180</td>
<td>233</td>
<td>371</td>
</tr>
<tr>
<td>Forest Trails</td>
<td>934</td>
<td>1,571</td>
<td>2,034</td>
<td>3,235</td>
</tr>
<tr>
<td>Scenic Byway</td>
<td>151</td>
<td>254</td>
<td>328</td>
<td>522</td>
</tr>
<tr>
<td>Wilderness</td>
<td>86</td>
<td>145</td>
<td>187</td>
<td>298</td>
</tr>
<tr>
<td>Picnic Area</td>
<td>195</td>
<td>329</td>
<td>425</td>
<td>677</td>
</tr>
<tr>
<td>Forest Roads</td>
<td>386</td>
<td>650</td>
<td>841</td>
<td>1,338</td>
</tr>
<tr>
<td><strong>Total Site Visits</strong></td>
<td><strong>1,859</strong></td>
<td><strong>3,129</strong></td>
<td><strong>4,048</strong></td>
<td><strong>6,441</strong></td>
</tr>
</tbody>
</table>

Ski industry and Tourism

Utah’s ski and snowboard industry attracts significant visitors and tourism dollars to the state. According to a report prepared by the Governor’s Office of Planning and Budget, the number of skier visits to Utah has increased steadily since recording began in 1960. In 2006, Utah posted more than 4 million skier days with the number of out-of-town skiers approaching the number of resident skiers. Other economic benefits to the state include recreational tourism, the Outdoor Retailers show and a healthy outdoor industry.

As skier-day trends continue to increase, resorts and other stakeholders must balance access, revenues, skier capacity, visitor experience, and environmental impact. The economic benefit to the whole state from almost 2 million out-of-state ski days and the hotel and restaurant visits that accompany them must be recognized. This value must, however, be placed in the context of an ever-increasing impact on a fragile network of ecosystems, stressed roadways, a limited number of facilities, and a limited land base shared with other recreational uses.

---

Ski / Snowboarding related spending in Utah was estimated at $1.06 billion for the ’07-’08 season.

Source: 2007-2008 Utah Ski and Snowboard Survey

Over 4,000,000 Skiers / Snowboarders hit the slopes in Utah during the ‘07-’08 season.

Source: 2007-2008 Utah Ski and Snowboard Survey

---

<table>
<thead>
<tr>
<th>Year</th>
<th>Ski Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2.4</td>
</tr>
<tr>
<td>2030</td>
<td>3.9</td>
</tr>
<tr>
<td>2050</td>
<td>4.8</td>
</tr>
<tr>
<td>2100</td>
<td>7.8</td>
</tr>
</tbody>
</table>

*Numbers are in millions

**Transportation**

Anyone who has driven home from a Cottonwood Canyons ski resort on a busy, snowy weekend knows that our canyon roads are at capacity during peak driving times. In many cases, narrow canyon geography prevents the addition of more traffic lanes or other more traditional road improvements. Rethinking how we access our Wasatch Range and how our access affects water, recreation, landowners, businesses and habitat is critical to the future of the range. Ensuring access to the various user groups while protecting natural resources is our greatest challenge. Creative solutions and strong leadership will be required to achieve this balance.

**Baseline Data**

Our canyon roads are busy and only getting busier. According to the Cottonwood Canyons Scenic Byways Corridor Management Plan, “peak days can generate over 10,000 vehicles in each (Big and Little Cottonwood) Canyon.” UDOT projections for annual average daily traffic (AADT) show significant increase in the number of vehicles in all canyons. Parleys Canyon saw 24,630 AADT in 1990, 47,890 in 2007, and a projected 75,525 AADT in 2030. The baseline data suggest that without traffic and parking management strategies, our busy canyons will only become more congested.

**Average Annual Daily Traffic By Canyon**

![Parleys Canyon (I-80)]

![Big Cottonwood Canyon]

![Little Cottonwood Canyon]

![Emigration Canyon]

www.skiutah.com
Cottonwood Canyons Scenic Byways Corridor Management Plan (2008)

The 2008 Cottonwood Canyons Scenic Byway Study was a joint public process between the U.S. Forest Service, the Town of Alta, the Big Cottonwood Community Council, Salt Lake City and the Utah Department of Transportation through a Federal Highways Administration grant administered through the Federal Scenic Byways program. The project focused specifically on SR-190 and SR-210 (Little and Big Cottonwood Canyon roads), and included the area from the ridgeline of each canyon to the road. Both roads have been designated as State Scenic Byways since 1990.

Recognizing the unique mix of uses and resources in these two canyons, the study addresses issues of tourism, historic and natural preservation, watershed protection, roadway safety and economic development. Mindful of these issues, the document presents a vision for the future of the two canyon byways and lays out both general and specific recommendations toward the vision. As defined by the report, the vision reads: “The Big and Little Cottonwood Canyons Scenic Byways will offer outstanding scenery, access to year-round developed and undeveloped recreation, and visitor education and information, creating an enjoyable and satisfying experience for visitors to the Byway and their destinations.”

General recommendations include using transportation demand management, improving specific visitor sites, a year-round transit system, developing a parking management plan, promoting pedestrian and cycle safety, creating a visitor/transit center and interpretive materials, and creating a Byways Committee. The study also recommends promoting responsible recreation, protecting vistas, and improving visitor facilities. Corridor improvement recommendations include gateway features, pullouts, carpool facilitation, improved and additional signage where appropriate, the removal of unnecessary signs, refining emergency procedure, and the continued improvement of cycling conditions.

Little Cottonwood Canyon SR-210 Transportation Study (2006)

**Mountain Rail** - The study examines three types of mountain transportation: Rack/Cog, Cable Liner and an Aerial tramway. The Rack/Cog is the most expensive option, but has the most passenger capacity and is suited to steep narrow passage. A cable liner is a smaller, elevated system. Cable liner rail would require a larger number of cars, but could potentially meet passenger demand needs. Though grade is not an issue for an aerial tramway, similar to “The Tram” at Snowbird, trams over 2-3 miles are rare.

**Berms** - Berms are elevated sections of earth that sit between the road and the slide path. The existing “China Wall” is an example of a berm that somewhat protects SR-210 from the White Pine slide path.

**Sheds** - A snow shed is a reinforced concrete structure that allows for avalanche debris to pass over a road without affecting vehicle traffic. Construction cost estimates range from $16 to $50 million, depending on the size and number of sheds.

**Gaz-Ex** - Gaz-Ex is an avalanche control technology that directs hot gases to the starting area of an avalanche risk zone. Gaz-Ex installations are downward facing pipes that are frequently seen on ridges and couloirs above and near ski resorts. The technology consists of a propane and oxygen tank located near the Gaz-Ex tube. The gases are piped to an expansion chamber located at the base of the tube, mixed and ignited to create an explosion at the top of avalanche zones. The blast causes disturbance and releases snow before it has a chance to form an unstable snow pack. The system can be controlled from a remote location, such as the resort, from a computerized system. The system allows greater control over avalanche release from the security of a remote location. Currently, Gaz-Ex installations are being used, with success, in many locations in Utah and throughout the world. There are currently two installations in Little Cottonwood Canyon.
Citizens and regional leaders worked together to create *Wasatch Canyons Tomorrow*. The process included public announcements, community workshops, online surveys, phone polling, and Executive, Steering and Technical Committee meetings. The process took place over 18 months and included 16 open houses. The input from thousands of concerned citizens and community leaders outlined a vision for the Wasatch Canyons. The data that follow summarize that input.

### Round 1: Spring 2009 Values Survey

#### What issue is most important to you in each canyon?

<table>
<thead>
<tr>
<th>Canyon</th>
<th>Recreation</th>
<th>Watershed</th>
<th>Transportation</th>
<th>Wildlife Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Creek</td>
<td>#1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emigration</td>
<td>#1</td>
<td>3</td>
<td>#2</td>
<td></td>
</tr>
<tr>
<td>Parleys</td>
<td>2</td>
<td>3</td>
<td>#1</td>
<td>3</td>
</tr>
<tr>
<td>Millcreek</td>
<td>#1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Big Cottonwood</td>
<td>2</td>
<td>#1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Little Cottonwood</td>
<td>3</td>
<td>#1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

#### Which of the following uses do you engage in most frequently?

<table>
<thead>
<tr>
<th>Season</th>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Winter/Spring</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ski/Snowboard</td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Backcountry Skiing</td>
<td>23%</td>
<td></td>
</tr>
<tr>
<td>Snowshoeing</td>
<td>14.3%</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>10.5%</td>
<td></td>
</tr>
<tr>
<td>Dog Walking</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>XC Skiing</td>
<td>5.9%</td>
<td></td>
</tr>
<tr>
<td>Hunting/Fishing</td>
<td>2.6%</td>
<td></td>
</tr>
<tr>
<td>Sledding</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>Heliskiing</td>
<td>0.2%</td>
<td></td>
</tr>
<tr>
<td><strong>Summer/Fall</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hiking/Jogging</td>
<td>43.9%</td>
<td></td>
</tr>
<tr>
<td>Rock Climbing</td>
<td>12.5%</td>
<td></td>
</tr>
<tr>
<td>Mountain Biking</td>
<td>10.2%</td>
<td></td>
</tr>
<tr>
<td>Camp/Picnic</td>
<td>10.2%</td>
<td></td>
</tr>
<tr>
<td>Wildlife Viewing</td>
<td>7.6%</td>
<td></td>
</tr>
<tr>
<td>Dog Walking</td>
<td>7.1%</td>
<td></td>
</tr>
<tr>
<td>Resort Use</td>
<td>6.7%</td>
<td></td>
</tr>
<tr>
<td>Road Cycling</td>
<td>4.4%</td>
<td></td>
</tr>
<tr>
<td>Hunting/Fishing</td>
<td>2.9%</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>2.0%</td>
<td></td>
</tr>
</tbody>
</table>

### What do you value most about the canyons?

- **Environment** 30.2%
- **FDP** 36.0%
- **Aesthetics** 20.2%
- **Economy** 1.4%
- **Water Quality** 12.3%
Canyon Management

What approach should the County take in regulating land use in the canyons?

- Relax regulations: 32%
- Enforce existing regulations: 34%
- Strengthen regulations: 34%

Looking forward 20 years, what is the best way to address potential growth in backcountry recreation in the Wasatch Canyons?

- Additional multi-use trails and trailheads: 13%
- Expand trailhead facilities: 26%
- Limited change except for required transportation improvements: 44%
- No change: 17%

Which recreational management approach should be the top priority in the Wasatch Canyons?

- Charge fees to improve facilities and services: 24%
- Promote use of recreation outside of the canyons: 18%
- Re-direct some uses from heavily used areas to less-used areas: 21%
- Improve facilities to meet demands: 23%
- No change needed: 14%

Which management approach would best ensure environmental health?

- Limit land development: 53%
- Environmental stewardship education: 9%
- Improve public transportation: 12%
- Protect sensitive habitat areas: 11%
- Regulatory/Enforcement: 9%
- Charge fees for improved maintenance & services: 6%

In general, which management approach do you feel is most effective in ensuring watershed health?

- Acquire private land for watershed protection: 17%
- Charge fee for improved maintenance and services at trailhead: 4%
- Improve public transportation: 8%
- Watershed stewardship education: 11%
- Limit land development: 43%
- Regulatory/Enforcement: 17%

Canyon Concerns

In your opinion, are any of the Wasatch Canyons overused?

- YES: 62.5%
- NO: 37.5%

Which of the following issues affecting the canyons concerns you the most?

- Increased regulation of private land: 8%
- Transportation challenges: 9%
- Water quality & other environmental impacts: 16%
- Development on private land: 41%
- Growing number of visitors & uses in canyons: 21%

Number of Respondents
Round 2: Fall 2009 Scenario Survey

The second round of public participation explored support for a range of scenarios—alternative management strategies—developed from the results of Round 1. Each scenario includes an analysis of its potential impacts.

Land Ownership/Development Context & Scenarios Overview

The land-use scenarios vary in the number of homes that are built, the acreage developed, land preserved and other key factors. Each scenario adopts a unique set of strategies. Scenarios A and B attempt to reduce the amount of development relative to the Baseline (trend) Scenario. Scenarios C and D have more development than the Baseline. Scenario C has the most new units developed but concentrates those new units at higher densities in exchange for preserving open space. Scenario D builds at current allowed density (based on existing county zoning), with much of the growth in the form of large lots (10-20 acres). In all scenarios, water provision would be subject to current policy.

Baseline

Development occurs at recent trends with existing county zoning (FCOZ) and land use policies, including variances.

Scenario A

Strengthen land use regulations to be more restrictive and decrease occurrences of variances relative to the baseline. Open space results from purchase for public use. (The public responded to individual strategies as part of the survey. 78% favored purchasing private property for open space.)

Scenario B

Change canyon land use regulations to encourage development to occur at higher densities through clustering and Transferring Development Rights (TDR) where possible. (71% of survey respondents support TDR.) Open space is preserved through conservation easements. (TDRs sent outside of the canyon areas will be incentivized.)
### Scenario C
Build 225% of baseline development. Change canyon land use to **allow clustering of development** (82% of survey respondents support clustering) at higher densities within individual parcels of ownership. Open space is preserved through conservation easements.

### Scenario D
Build 200% of baseline demand with currently allowed densities, based on county zoning (FCOZ). **Open space is preserved in large lots** (82% of survey respondents oppose.)

---

**Comparing the Scenarios: Land and Water Use Analysis**

#### Residential Scenarios Comparison

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Developed Acres</th>
<th>Acres Preserved</th>
<th>Remainder of 12,000 Residential Zoned Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>204</td>
<td>1,203</td>
<td>10,588</td>
</tr>
<tr>
<td>Scenario B</td>
<td>130</td>
<td>1,000</td>
<td>10,588</td>
</tr>
<tr>
<td>Baseline</td>
<td>412</td>
<td>1,000</td>
<td>10,588</td>
</tr>
<tr>
<td>Scenario C</td>
<td>311</td>
<td>3,353</td>
<td>8,336</td>
</tr>
<tr>
<td>Scenario D</td>
<td>2,664</td>
<td>1,000</td>
<td>8,336</td>
</tr>
</tbody>
</table>

#### Type of Additional Dwelling Unit by Scenario

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Addtl. condos</th>
<th>Addtl. year-round homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>0</td>
<td>200</td>
</tr>
<tr>
<td>Scenario B</td>
<td>0</td>
<td>677</td>
</tr>
<tr>
<td>Baseline</td>
<td>92</td>
<td>405</td>
</tr>
<tr>
<td>Scenario C</td>
<td>159</td>
<td>1081</td>
</tr>
<tr>
<td>Scenario D</td>
<td>323</td>
<td>672</td>
</tr>
</tbody>
</table>

#### Additional Water Demand (Acre Feet)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>CFS</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>144</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario B</td>
<td>110</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>193</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Scenario C</td>
<td>202</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario D</td>
<td>52</td>
<td></td>
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</tr>
</tbody>
</table>

1 Acre Foot = 1 Square Acre x 1' (12") Deep

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**Additional Storm Water Flows (CFS)**

- Scenario A 144 CFS (Cubic Feet per Second)
- Scenario B 110 CFS
- Baseline 193 CFS
- Scenario C 202 CFS
- Scenario D 52 CFS

**Additional Impervious Acres**

- Scenario A 41 Acres
- Scenario B 64 Acres
- Baseline 63 Acres
- Scenario C 113 Acres
- Scenario D 15 Acres

**Additional Water Demand**

- Scenario A 55 Acre Feet
- Scenario B 179 Acre Feet
- Baseline 114 Acre Feet
- Scenario C 289 Acre Feet
- Scenario D 212 Acre Feet
Recreation Context & Scenarios Overview

The recreation scenarios reflect an array of future recreational opportunities an individual or family may experience (not including resort recreation scenarios) in the Wasatch Canyons in 2030. The public reviewed five scenarios, including a “baseline” scenario that attempts to capture the trends that are occurring today and projected into the future if few or no policy changes are adopted. The “baseline” scenario is driven primarily by population growth along the Wasatch Front and assumes that recreational use, travel and development in the canyons will occur at a steady rate, relative to the population growth of 2% to 3%, resulting in a nearly doubling of the population by the year 2030. Scenarios A and B focus on mitigating environmental, aesthetic and watershed impacts through 2030 by using more restrictive recreation management practices. Scenarios C and D facilitate and manage the expected growth in recreational use, transportation demand, and development by improving and expanding developed and dispersed recreation facilities to meet demand. These scenarios are independent from the resort scenarios. Recreation is largely managed by the U.S. Forest Service as directed by the 2003 Forest Plan. Changes to the existing Forest Plan would require a separate public process.

### Overview of Scenarios

<table>
<thead>
<tr>
<th>Recreation Impacts</th>
<th>Baseline</th>
<th>Scenario A</th>
<th>Scenario B</th>
<th>Scenario C</th>
<th>Scenario D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter Backcountry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Climbing</td>
<td></td>
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</tr>
<tr>
<td>Hiking</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Camping/Picnicking</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Legend**

- **↓** = Decrease
- **⇔** = No Change
- **↑** = Increase

### The Recreation Scenarios

**Baseline**

No charge for parking or trail use in Big and Little Cottonwood Canyons. May include some expansion of winter public transportation system and “park and ride” lots.

*Photo Source: Padraic Ryan*
Scenario A: Ecological Focus

Scenario A mitigates the impacts to ecosystems and watersheds by requiring permits for some backcountry uses. Parking would be limited to designated areas and a per-vehicle fee may be implemented to pay for facility maintenance or improvements and law enforcement.

Implementation Strategies:

- Require individual permits or licenses for various backcountry and developed recreational uses
- May cap the number of permits/licenses to reduce/slow the growth of users
- Implement a per-vehicle parking fee at trailheads or along roadways (62% of survey respondents support)
- May close certain areas to public access for habitat restoration (69% of survey respondents support)
- May require the construction of a visitor center to administer/distribute permits, licenses and educational materials

Climbing area parking spots and access points could be consolidated to reduce impact and maintenance costs.

Scenario B: Environmental Tourism Focus

Scenario B provides the greatest amount of environmental protection without purposefully trying to reduce the number of visitors by 2030. Some strategies include charging for parking at trailheads and along roadways and providing better public transportation access to popular recreational access points year-round. Enforcement of parking and other regulations would require increased law enforcement and administrative resources, which could be paid for in part by the user fees.

Implementation Strategies:

- A per-vehicle parking fee at trailheads or along roadways
- May close certain areas to public access for habitat restoration
- Possible transit/visitor center to administer parking passes, traveler information and educational materials (57% of survey respondents support)
- Expanded public transportation system to provide access to popular recreation access points
Scenario C: Dispersed Recreation Focus

Scenario C focuses on improving and expanding facilities for backcountry recreational uses. Strategies include improving roadway shoulders, expanding trailhead facilities, improving parking areas, building new trails for popular climbing areas, and expanding public transportation from winter-season-only to year-round. Parking management would entail designated parking zone ticketing. Facilities improvements, increased number of visitors and requisite law enforcement would require substantial increase in funding beyond today’s levels.

Implementation Strategies:

• Expanded year-round public transportation service to popular access points (88% of survey respondents support)
• Improvements to popular backcountry recreation areas (76% of survey respondents support)
• Expansion or improvements of existing trailhead facilities (79% of survey respondents support)

No parking zones, consolidated access points, and a comprehensive transportation plan could improve the accessibility of the canyons.

Scenario D: Developed Recreation Focus

This scenario prioritizes picnicking, camping and year-round resort uses. These activities may have a greater impact on the “natural” experience with less impact on sensitive habitat. The priority in this scenario are those who use the picnic sites, camp sites, sightseeing pull-offs and developed resort areas. Public transportation would be implemented (may include aerial tramways). Due to population growth, the popularity of developed recreation, and the lack of economic disincentives for private vehicle use, an increase in traffic at parking areas and developed recreation sites would be likely. Law enforcement and facilities maintenance may decrease without user fees/fee increases.

Implementation Strategies:

• No parking fee, but may enforce no-parking zones along some portions of roadways (78% of survey respondents support parking enforcement)
• Improvements or expansion of camping/picnicking areas (75% of survey respondents support)
• Pull-outs for sightseeing or scenic photography (77% of survey respondents support)
• Allows for some resort improvements and expansions

Year-round resort use opens up possibilities
Resort Context & Scenarios Overview

In the Baseline Scenario, resorts remain within the existing ski area boundaries while undertaking some projects within their current master plans, which include some remodeling and expansion of existing buildings. The Baseline has the highest skier densities, relative to Scenarios A through D, because it does not add additional land to the ski area boundary. As a result, the natural increases of ski-age population and continued attraction of out-of-state skiers will increase skiers from 1.6 million annually to 2.02 million annually by 2030, a 26% increase in skiers, thereby increasing average skier density from 255 skiers per acre annually to 317 skiers per acre annually. As a reference, some of the busier Colorado resorts currently have 400+ skiers per acre.

Baseline: Current Trends Continue

### 2009 Baseline

<table>
<thead>
<tr>
<th>Description</th>
<th>Resort Area</th>
<th>Improvements</th>
<th>% Lift Increase</th>
<th># of Skiers</th>
<th>Skiers/Acre</th>
<th>% Skier/Acre Increase by 2030</th>
<th>Jobs/Wages (2010 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resort expansion limited to approved master plan projects.</td>
<td>Within current FS Boundary</td>
<td>Current Facilities and Terrain</td>
<td>-</td>
<td>1.6 million</td>
<td>6,379 Acres</td>
<td>Baseline</td>
<td>$150 million</td>
</tr>
</tbody>
</table>

### 2030 Baseline

<table>
<thead>
<tr>
<th>Description</th>
<th>Resort Area</th>
<th>Improvements</th>
<th>% Lift Increase</th>
<th># of Skiers (*)</th>
<th>Skiers/Acre</th>
<th>% Skier/Acre Increase by 2030</th>
<th>Jobs/Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limit resort expansion to existing Forest Service (FS) permit areas and approved Master Plan projects.</td>
<td>Within current FS Boundary</td>
<td>Some remodeling and expansion of existing buildings (already approved)</td>
<td>3%</td>
<td>2.02 million</td>
<td>317 Skiers/Acre 6,379 Acres</td>
<td>24% Baseline</td>
<td>$220 million</td>
</tr>
</tbody>
</table>

(*) Assumes a growth rate of 1% based on historic growth

Scenario A (2030)

Limits resort expansions to existing Forest Service permit areas and some master-planned projects, including limited base area improvements such as a new lodge and operation center. Does not include any infringements on existing winter backcountry ski areas and should have little or no effect on environmental resources (94% of survey respondents support) because building improvements are made in already-developed areas.

<table>
<thead>
<tr>
<th>Description</th>
<th>Resort Area</th>
<th>Improvements</th>
<th>% Lift Increase</th>
<th># of Skiers (*)</th>
<th>Skiers/Acre</th>
<th>% Skier/Acre Increase by 2030</th>
<th>Jobs/Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same as Baseline, plus some public transportation enhancements and limited base area improvements.</td>
<td>Within current Forest Service (FS) Boundary</td>
<td>Same as Baseline, plus some public transportation facilities and new base lodge and operation center</td>
<td>3%</td>
<td>2.02 million</td>
<td>310 Skiers/Acre 6,570 Acres</td>
<td>26%</td>
<td>Additional 26 jobs and $1.6 million relative to baseline</td>
</tr>
</tbody>
</table>

(*) Increases resulting from % lift increase
Scenario B (2030)

Allows development within the Forest Service permit boundary and on private land, including some new base lodges and operation centers (77% of survey respondents support). The number of skiers in 2030 increases by 30,000 due to added capacity and ski terrain. Very little or no infringement occurs on existing winter backcountry ski areas and should have little or no effect on environmental resources (94% of survey respondents support) because building improvements are made in already-developed areas.

<table>
<thead>
<tr>
<th>Description</th>
<th>Resort Area</th>
<th>Improvements</th>
<th>% Lift Increase</th>
<th># of Skiers (*)</th>
<th>Skiers/Acre</th>
<th>% Skier/Acre Increase by 2030</th>
<th>Jobs/Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow development on Forest Service (FS) permit boundary and on private land.</td>
<td>Within current Forest Service (FS) Boundary</td>
<td>Some new base lodges and operation centers</td>
<td>5%</td>
<td>2.05 million</td>
<td>306 Skiers/Acre 6,698 Acres</td>
<td>20%</td>
<td>Additional 51 jobs and $8 million relative to baseline</td>
</tr>
</tbody>
</table>

(*) Increases resulting from % lift increase

24% of people surveyed preferred Scenario B

Scenario C (2030)

Anticipates growth in ski industry by 2030 and accommodates more skiers through building improvements and additional ski lifts (within existing Forest Service permit boundaries). Scenario C includes new base area lodges/operation centers, remodeling and parking area improvements (67% of survey respondents support). While Scenario C has 50,000 more skiers than today, the skier density would be less than the Baseline because new terrain and ski lifts are added. Some resort improvements would require additional environmental study and public input.

<table>
<thead>
<tr>
<th>Description</th>
<th>Resort Area</th>
<th>Improvements</th>
<th>% Lift Increase</th>
<th># of Skiers (*)</th>
<th>Skiers/Acre</th>
<th>% Skier/Acre Increase by 2030</th>
<th>Jobs/Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emphasis on base areas at resorts. New buildings and lifts added within existing FS boundaries.</td>
<td>Within current Forest Service (FS) Boundary</td>
<td>Some new base lodges and resort operation centers, remodeling and parking area improvements</td>
<td>10%</td>
<td>2.07 Million</td>
<td>296 Skiers/Acre 7,010 Acres</td>
<td>16%</td>
<td>Additional 151 jobs and $8 million relative to baseline</td>
</tr>
</tbody>
</table>

(*) Increases resulting from % lift increase

15% of people surveyed preferred Scenario C

Scenario D (2030)

Allows expansion outside the current FS permit boundary and on private land, including some new base lodges and operation centers (51% of survey respondents support). The number of skiers in 2030 increases by 30,000 due to added capacity and ski terrain (62% of survey respondents support).

<table>
<thead>
<tr>
<th>Description</th>
<th>Resort Area</th>
<th>Improvements</th>
<th>% Lift Increase</th>
<th># of Skiers (*)</th>
<th>Skiers/Acre</th>
<th>% Skier/Acre Increase by 2030</th>
<th>Jobs/Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow expansion outside of FS boundaries. Resort base area expansion and on-mountain ski area expansion (**)</td>
<td>Outside of current Forest Service (FS) Boundary</td>
<td>Several new base lodges and facilities in addition to remodeling existing buildings</td>
<td>26%</td>
<td>2.15 Million</td>
<td>270 Skiers/Acre 7,974 Acres</td>
<td>5%</td>
<td>Additional 409 jobs and $21.6 million relative to baseline</td>
</tr>
</tbody>
</table>

(*) Increases resulting from % lift increase

11% of people surveyed preferred Scenario D

(**) Inconsistent with 2003 Forest Plan. Would require additional study and an amendment to the 2003 Forest Plan, likely requiring a separate public process.
Comparing the Scenarios: Resort Analysis (estimates by GOPB)

**Skier Density**
- **2009 Baseline**: 255 Skiers/Acre
- **2030 Baseline**: 317 Skiers/Acre
- **Scenario A**: 310 Skiers/Acre
- **Scenario B**: 306 Skiers/Acre
- **Scenario C**: 296 Skiers/Acre
- **Scenario D**: 270 Skiers/Acre

<table>
<thead>
<tr>
<th>Year/Scenario</th>
<th>Skiers/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 Baseline</td>
<td>255</td>
</tr>
<tr>
<td>2030 Baseline</td>
<td>317</td>
</tr>
<tr>
<td>Scenario A</td>
<td>310</td>
</tr>
<tr>
<td>Scenario B</td>
<td>306</td>
</tr>
<tr>
<td>Scenario C</td>
<td>296</td>
</tr>
<tr>
<td>Scenario D</td>
<td>270</td>
</tr>
</tbody>
</table>

**Number of Skiers (Millions)**
- **2009 Baseline**: 1.6 Million
- **2030 Baseline**: 2.02 Million
- **Scenario A**: 2.04 Million
- **Scenario B**: 2.05 Million
- **Scenario C**: 2.07 Million
- **Scenario D**: 2.15 Million

<table>
<thead>
<tr>
<th>Year/Scenario</th>
<th>Number of Skiers (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 Baseline</td>
<td>1.6</td>
</tr>
<tr>
<td>2030 Baseline</td>
<td>2.02</td>
</tr>
<tr>
<td>Scenario A</td>
<td>2.04</td>
</tr>
<tr>
<td>Scenario B</td>
<td>2.05</td>
</tr>
<tr>
<td>Scenario C</td>
<td>2.07</td>
</tr>
<tr>
<td>Scenario D</td>
<td>2.15</td>
</tr>
</tbody>
</table>

**Percent Increase in the Vertical Transmission Feet of Lifts**
- **2030 Baseline**: No Increase
- **Scenario A**: 3% Increase
- **Scenario B**: 5% Increase
- **Scenario C**: 10% Increase
- **Scenario D**: 26% Increase

<table>
<thead>
<tr>
<th>Year/Scenario</th>
<th>Percent Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>2030 Baseline</td>
<td>No Increase</td>
</tr>
<tr>
<td>Scenario A</td>
<td>3%</td>
</tr>
<tr>
<td>Scenario B</td>
<td>5%</td>
</tr>
<tr>
<td>Scenario C</td>
<td>10%</td>
</tr>
<tr>
<td>Scenario D</td>
<td>26%</td>
</tr>
</tbody>
</table>

**Additional Jobs (with Additional Revenue Dollars)**
- **2030 Baseline**: No Increase
- **Scenario A**: 26 Jobs ($1,630,000)
- **Scenario B**: 51 Jobs ($2,710,000)
- **Scenario C**: 151 Jobs ($8,002,453)
- **Scenario D**: 409 Jobs ($21,670,000)

<table>
<thead>
<tr>
<th>Year/Scenario</th>
<th>Additional Jobs</th>
<th>Additional Revenue Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>2030 Baseline</td>
<td>No Increase</td>
<td></td>
</tr>
<tr>
<td>Scenario A</td>
<td>26 Jobs</td>
<td>($1,630,000)</td>
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<tr>
<td>Scenario D</td>
<td>409 Jobs</td>
<td>($21,670,000)</td>
</tr>
</tbody>
</table>
**Transportation Context**

Based on annual traffic and population growth rates, traffic and parking-related challenges in the canyons will continue to get worse. *Wasatch Canyons Tomorrow* explored alternative approaches to address this challenge, ranging from modest changes to the existing system, such as improvements in bus technology (cleaner fuel, more power, comfort, etc.) and digital information signs that relay parking lot capacity, traffic information, etc., to expanding park-and-ride facilities along the east bench and along the ski bus route corridors, to adding new transit modes. Among the scenarios, the Baseline has the highest amount of driving and least transit use, but is also the least expensive alternative. Even with growth, travel will be relatively convenient during the weekdays and off-seasons. Our task is to find solutions for peak travel periods.

**Scenarios A and B**

**Basic Legend**
- **Personal vehicles & public transportation dominate.**
- **Personal vehicles and public transit share the road with cyclists.**
- **Restrictions on personal vehicle use.**
- **Regular shuttle service added. Cyclists share the road.**

**Icon Key**
- **Personal vehicles restricted**
- **Bus ($) - Small fee charged to ride**
- **Bike lane or signage to indicate that cyclists/auto traffic share the road.**

**Did You Know?**

When asked whether they would support encouraging cycling and restricting auto traffic one weekend day per summer, in each canyon, on a rotating basis, respondents said **48% Yes** and **52% No**.
Scenario C

Using the airport TRAX line, visitors and residents could take TRAX from their flight or home down the Sandy line and transfer to a mountain spur that would take them to the Visitors Center. From there a shuttle would take them to their resort destination.

Shuttle service added up Millcreek Canyon. A fee would remain for private vehicles. (82% of survey respondents support)

Scenario C: Skiers and snowboarders can quickly take TRAX to the mouth of the canyons where they can access shuttles or UTA bus service up the canyons.

Basic Legend

- Restrictions on personal vehicle use. Regular shuttle service added. Cyclists share the road.
- Existing Light Rail (TRAX) Lines

Icon Key

- Personal vehicles restricted
- Bus ($) - Small fee charged to ride
- Bike lane or signage to indicate that cyclists/auto traffic share the road.

A TRAX spur leading from the 9400 South Station could take people straight to the transit/visitor center. (82% of survey respondents support)

The gravel pit in Cottonwood Heights is a potential site for a transit/visitor center. (71% of survey respondents support)

Shuttles from the Visitor Center will replace personal vehicles up Big and Little Cottonwood Canyons during peak summer and winter weekends. (57% of survey respondents support)

The Visitor Center could be located at the mouth of either Big or Little Cottonwood Canyon. The shuttle system would make getting up any canyon from the Transit/Visitor Center more convenient.
Scenario D

Using the airport TRAX line, visitors and residents could take TRAX from their flight or home down the Sandy line and transfer to a mountain rail line up Little Cottonwood Canyon.

Shuttles and buses would work to connect the canyons through a transit/visitor center. (82% of survey respondents support)

Park-and-rides will be conveniently located for non-TRAX users.

At 9400 South, users could transfer to mountain rail up Little Cottonwood Canyon. From the hub at the mouth of Little Cottonwood Canyon, users could take a shuttle to Big Cottonwood Canyon and the Visitor Center, or continue on the mountain rail line up Little Cottonwood Canyon. Personal vehicles will be allowed with no restrictions. (69% of survey respondents support)

Hiker symbols denote a possible sampling of stops at major hiking trail heads, points of interest, resorts, scenic viewsheds, etc.

Basic Legend
- Mountain Rail
- Existing Light Rail (TRAX) Line
- Restrictions on personal vehicle use. Regular shuttle service added. Cyclists share the road.

Icon Key
- Personal vehicles allowed
- Bus ($) - Small fee charged to ride
- Mountain Rail ($$) - Moderate fee charged to ride.
- Bike lane or signage to indicate that cyclists/auto traffic share the road.

Scenario D: Both a cog train and personal vehicles work to transport through Little Cottonwood Canyon

Scenario D: Resort Train Station

31 Wasatch Canyons Tomorrow
No change would be made to public or private transit up Big or Little Cottonwood Canyons. Aerial trams would connect Big Cottonwood Canyon, Little Cottonwood Canyon, and Park City. (58% of survey respondents support) Private vehicles would still be allowed up all canyons without restriction.

Express transit service added up Parleys Canyon to Park City. (90% of survey respondents support bus service to Park City)

Commuters would be able to travel from Park City to the Salt Lake City Intermodal Hub and back.

Scenario E: Aerial trams connect Utah’s resorts and open recreation opportunities for summer and winter.

Basic Legend
- Personal vehicles and public transit dominate.
- Aerial Tram.

Icon Key
- Personal vehicles
- Bus ($) - Small fee charged to ride
- Aerial Tram ($$$) - Large fee charged to ride.
Comparing the Scenarios: Transportation Analysis (estimates by UTA and UDOT)

Relative Costs

*Economic estimates are preliminary. They are provided for the purpose of discussing the relative differences between scenarios only. Further analysis is necessary to produce more specific estimates.

Symbol indicates increments of roughly $50 million

Public Transit Riders
(In percent change from 2009 Daily Averages)

Average Daily Traffic
(In percent change from 2009 Daily Averages)

Independent Poll
To validate the results of the Wasatch Canyons Tomorrow (WCT) surveys, Envision Utah engaged an independent polling firm to conduct a telephone poll on key WCT survey questions. Those polled did not have the benefit of the research and projected policy impacts available to WCT participants. Nevertheless, the level of support for policy recommendations was substantially consistent between the polled sample and the WCT participants, although the polled sample tended to be less supportive of mountain rail.
A Vision Created by the People of Utah

*Wasatch Canyons Tomorrow* is a rare opportunity to explore growth-related issues and think together about what the Wasatch Canyons should be like in the future. It represents a legacy that can be created for future generations, as citizens and community leaders work toward common goals.

The process reflects the values of the people, the voice of the people, and the vision of the people. Broad participation in both creating and implementing the vision is the key to this process. Responding to the public voice, the recommended strategies outlined here attempt to balance our current enjoyment of the canyons with watershed protection, private property rights and future conservation needs. The public participation in this process makes the vision and implementation strategy politically actionable.

Looking decades into the future, residents share the same general vision. They foresee the canyons primarily in a natural condition, as part of a high-functioning watershed and regional ecosystem. Visitors can access their favorite areas year-round with fast, reliable and convenient public transportation. Oil runoff in the streams and the smell of exhaust fumes and burning brakes would be reduced. When they arrive, visitors find well-maintained picnic sites and sanitary facilities. Signs provide travel and interpretive information at trailheads. Up the trails, visitors enjoy solitude, hike, view wildlife, and recreate. Climbers access parking near popular routes. Cyclists ride up the canyons on a wide shoulder or dedicated lane with minimal conflict with cars. More areas are accessible for backcountry use with fewer property conflicts. Where there is development, it occurs efficiently, on suitable land, served by available infrastructure. Private property owners have more choices for getting value out of their land. Skiing thrives as it becomes easier for visitors to access the resorts, and getting there is part of the fun. Good avalanche control and transportation strategies improve safety. Enhanced recreational opportunities along the Jordan River and in the Oquirrh Mountains mitigate pressure on the Wasatch Canyons. And in perpetuity, the Wasatch Canyons continue to be the defining amenity in our region, a key contributor to our high quality of life. In sharing this vision, residents recognize that there are trade-offs, and that they will have to give something to realize this vision. Accordingly, they are willing to work with competing interests and help pay to make it happen. They call on responsible public officials to actively pursue this desired future. With that in mind, we present the following recommendations for consideration by our elected officials.
Regulating land use and guiding growth in the Wasatch Canyons is very complex. Our challenge is to protect wildlife habitat, water supply, and land with scenic and recreational values, while collaborating with multiple jurisdictions and respecting private property rights. With growing recreational use and human presence in the canyons, the question of how we use the land becomes more important and complicated. Due to these complexities, we need to integrate sustainability in our land use and stewardship decisions.

Property rights are rooted in everything from original mining claims to the purchase of newly subdivided lots. One of the intentions of this vision is to create an expectation that future land-use policy will continue to respect land owners and their property rights. Conversely, land owners need to understand how their actions affect the natural environment, hundreds of thousands of water users and millions of recreational visitors. Future policy should continue to balance the protection of property rights with protection of critical lands.

Survey results indicate that county residents are concerned with development in the Wasatch Canyons and would like the County to adopt strategies to protect sensitive lands, such as wetlands, alpine meadows, aspen forests, protected watersheds, steep slopes, scenic vistas and popular recreation areas. Because 20% of the land in the canyons is privately owned and zoned for residential use, a comprehensive strategy to achieve the preservation goals of the county residents should focus on voluntary market-based mechanisms that respect private property rights.

Survey results indicated significant support for moving development out of the canyons to protect watershed, scenery and recreational values. One strategy to accomplish this result is the purchase of high-priority private land (watershed, recreation, habitat, scenic) in the canyons on a willing-buyer-willing-seller basis. Residents strongly supported raising funds for this purpose.

Other strategies include mechanisms to encourage property owners to build in places other than high-priority lands. Some of these strategies are described in the recommendations below. They present some legal complexities which may preclude their immediate use. Nevertheless, the goals of protecting watershed and a quality recreation experience, getting past the history of burdensome, expensive lawsuits, and ensuring fairness to those holding legitimate ownership rights, are so important that these mechanisms should remain on the table for ongoing study and consideration during the term of the next Wasatch Canyons Master Plan.
The following recommendations are intended to help Salt Lake County realize the Land-Use Goal statement.

1. Enforce existing provisions of the Foothill and Canyon Overlay Zone (FCOZ). Restrict variances that circumvent these protections.

The general purpose of the Foothills and Canyons Overlay Zone (FCOZ) is to preserve the natural character of the foothills and canyons by establishing standards for development proposed in the unincorporated areas of the County. FCOZ standards are intentionally broad to allow flexibility in design so development can be evaluated on a site-by-site basis, while ensuring that development will be compatible with the natural landscape, and consistent with the public welfare.

The regulations and standards established by FCOZ include, but are not limited to:

- Preserve the visual and aesthetic qualities of the foothills and canyons, including prominent ridgelines, which are vital to the attractiveness and economic viability of the County.
- Encourage development designed to reduce risks associated with natural hazards and to provide maximum safety for inhabitants.
- Encourage development that fits the natural slope of the land in order to minimize the effects related to construction on hillsides, ridgelines, and steep slopes.
- Encourage planning, design, and development of building sites in a manner that provides the maximum in safety while adapting development to, and taking advantage of, the best use of natural terrain.
- Prohibit activities and uses that would result in degradation of fragile soils, steep slopes, and water quality.
- Reduce flooding by protecting streams, drainage channels, absorption areas, and floodplains from substantial alteration of their natural functions.
- Provide for preservation of environmentally sensitive areas and open space by encouraging clustering or other design techniques to preserve the natural terrain, minimize disturbance to existing trees and vegetation, preserve wildlife habitat, and protect aquifer recharge areas.
- Establish a foundation for development in sensitive lands to ensure a more harmonious relationship between man-made structures and the natural setting.

2. Increase funding for the purchase of high-priority lands.

The public strongly desires that the bulk of the remaining undeveloped private lands be acquired for public use, access and preservation. This will require increased funding for purchasing private lands and greater cooperation with land owners.

The public supported the following funding mechanisms during the process:

- County-wide conservation bond.
- Allocation of some of the Restaurant and Hotel Tax Funds.
- Donations encouraged through water-bills and resorts.
3. Work with the State Water Quality Board to fund revolving loans to incentivize upgrading septic systems or to pay for connections to water/sewer lines.

Upgrading an older home from a septic system to a sewer connection or bringing an older septic system up to current standards can mitigate potential water quality issues. Water quality studies confirm that when a home or community switches from septic to sewer the downstream concentration of coliform bacteria decreases dramatically (Salt Lake County Watershed Plan, Big Cottonwood Canyon coliform bacteria study).

4. Study strategies to incentivize development in appropriate areas and to preserve open space (for watershed, recreation, scenic value and wildlife).

Examples of strategies adopted elsewhere that merit consideration here:

- **Gunnison County, Colorado: Cash in Lieu**
  Property owners are allowed to increase density on their developable property beyond existing zoning standards in exchange for a cash payment to the county. Typically, the requirement for open space is set at 30% of land area, but would be reduced to 15% under this program. In a 40-acre subdivision, such a calculus would allow for six additional developable acres. The money levied for additional density is then used exclusively for open space land acquisition or for easements to preserve existing uses. Under such a program, lands can be purchased outright, rather than by transferring individual land-use rights. This eliminates the need for designating sending and receiving areas, as well as assigning development rights to undevelopable lots. Further, the fee is based on the increase in land value brought by development, rather than a set fee. The fee can be paid in full upon final plat approval, or in increments as individual lots are sold. The county can buttress these funds with donations from others in the form of money, land or land rights.

- **Bellingham, Washington: Residential Density Transfer**
  Bellingham utilizes a density bonus option with the Lake Whatcom Watershed Property Acquisition Program (LWWPAP). Specifically designed for watershed protection, the LWWPAP uses urban development in Bellingham to preserve the Lake Whatcom watershed. Under the density bonus option, developers are awarded one square foot of floor space for every square foot of land they preserve in the watershed. The program allows for a maximum increase of .5 in the floor area ratio. The Bellingham City Council establishes the amount of the cash payment.

- **Berthoud, Colorado: Transfer of Density Units**
  Larimer County, Colorado adopted a resolution in 1998 creating a transfer-of-density-unit program for the Fossil Creek Reservoir Area. The transfer-of-density-unit program is generally intended to guide growth and implement land use plans. More specifically, it is designed to protect areas that are important to the community, in exchange for a zoning change that allows more units, developers either preserve land (one acre per additional unit allowed) or pay a predetermined fee. Transfer of Density Units has been popular because developers have the choice between the two options.

The **Wasatch Canyons Tomorrow** process identified a novel approach which could be studied here:

- **Wasatch Canyons Benefit Assessment**
  Watershed protection, soil conservation, scenery, wildlife and recreation all provide substantial economic benefits and make our region a more attractive place to live and do business. Using existing methods to calculate the economic benefits derived from protecting the canyons from development, we could devise a mechanism to help share the cost of protecting the canyons from future development. If we consider that current property values and development as well as future development derive some portion of their value due to the proximity of the Wasatch Mountains and the multiple benefits which it provides our residents, we could assess property taxes and impact fees based on a “proportionate-share” formula: i.e. “how much does each property benefit from protecting the Canyons?” This Wasatch Canyons Benefit Assessment program could work in the following way:
  
  • Start with an estimate of the cost of protecting high-priority land in the canyons.
  • A Bond is issued to acquire the land or its “development rights” for public use or protection.
  • The Bond could then be retired through a combination of property taxes on existing development and an impact fee-like assessment applied to new development based on a calculation of the proportional benefits derived by future homebuyers.
Recreation

Offer diverse, high-quality recreation experiences while protecting the natural resources of the Wasatch Canyons.

The Wasatch Canyons represent a unique recreational amenity in close proximity to a large metropolitan area. Achieving sustainable recreation in the Wasatch will require the examination of issues such as development, public access, and environmental degradation caused by increasing visitation and growing conflicts between recreational uses. Many participants called for a carrying-capacity analysis to determine what use levels can be sustained without degrading important values. As techniques for such analysis improve, a carry-capacity study would provide useful information to resource managers.

The following recommendations, if implemented, will help achieve the public vision for the Wasatch Canyons as expressed in this and past planning efforts.

1. Study the feasibility of a parking pass to pay for improvements to recreational areas in Big and Little Cottonwood Canyons.

A key recommendation is to study the need for and the logistics of a recreation access pass in Big and Little Cottonwood Canyons. Survey results indicate that over 60% of the public support such a proposal. Many concerns stem from the significant number of people and automobiles in the canyons. A recreation access pass could make funds available to help manage these impacts. The pass could also act as a management tool to reduce the number of private vehicles traveling the roads, as people would be encouraged to carpool or take public transportation. Under the proposed access pass, automobiles parking at trailheads, road-shoulders and elsewhere in Big and Little Cottonwood Canyons would be required to display a recreation pass when parked. Among other factors, a feasibility study should include:

- The formation of an advisory committee to oversee implementation and management of an access pass program.
- Pricing structure of the access pass. Daily and annual passes should be available.
- The logistics of how the money is collected.
- How and where the collected money is spent.
- Passes for canyon residents, employees, and businesses.
• A detailed parking inventory of all stalls in Big and Little Cottonwood Canyons, including trailheads, side-of-road and resort parking.

• Develop a Park-and-ride Expansion Master Plan to study the needs and impacts of additional parking outside of the canyons to serve the canyons.

• Identification of no-parking areas and private parking conflict areas.

2. Acquire strategic land and/or easements for recreation access.

Acquiring strategic pieces of land or easements for recreation access is vital to resolve conflicts between private property owners and recreationalists. In some situations, people seeking access to public lands and recreation may be trespassing on private lands, often without knowing. Maintaining trailheads and other recreation infrastructure will provide quality opportunities for outdoor recreation, while reducing conflict with property owners. As a result, the community will benefit from a greater range of outdoor access.

3. Conduct a Capacity Study for trails in the Wasatch Canyons.

A capacity study could provide accurate information about recreational use, over-use and associated impacts. This information is not currently available for the trails in the Wasatch. Quality dispersed-recreation data is needed to properly manage future recreation within the canyons. A panel should be formed to study the capacity of the trails in the Wasatch (i.e., how many people can use a particular trail without causing unacceptable degradation in resources or visitor experience). The joint panel should include representatives from the County, Forest Service, cities, state, watershed groups, resorts and other interested recreation user groups. Suggested areas of study include:

• Parking capacity at trailheads.

• Summer and winter trail use, including ski area summer trail use.

• Procedures and steps to properly restore and maintain overused trails.

• Safety issues and user conflict areas.

4. Develop a Master Trails Plan to explore regional trails and trail connections for appropriate uses.

A Master Trails Plan would identify the location of existing and proposed recreational trails throughout the canyons and would establish trail improvement, maintenance, and management standards. Ideally, the trail system would provide non-motorized routes to connect canyons to each other and to the valley for a variety of recreational users. The plan should:

• Include strategies to address demand and capacity issues for trails in the Tri-Canyons.

• Work with the U.S. Forest Service’s established trail standards and policies.

• Coordinate with private property owners and public land and resource managers.

• Include plans for regional mountain biking. Address the needs of cross-country, free-ride and downhill mountain-bike groups.

• Study and develop the natural trail corridors that connect the canyons. Address how public transit could accommodate different users groups. Recreational gear, bikes, and dogs need to be taken into account.
In the spring of 2007, the Salt Lake County Council adopted the Emigration Canyon Trails Master Plan. The Plan provides a framework for organizing trails and trail facilities in and through Emigration Canyon. The Plan is intended to guide property owners, governmental agencies, residents and decision makers regarding trail conditions, trail issues and preferred trail alignments and construction standards. The Emigration Trails Plan is thorough, but will likely require an environmental review before implementation can begin. There are currently insufficient funds to begin review and implementation of the Plan. The Wasatch Canyons Tomorrow recommendations suggest funding strategies so that implementation can begin. Other potential funding sources include:

- A “special service district” to raise funds for trails, maintenance and law enforcement within Emigration Canyon.
- Grant programs
- Bonds
6. Maintain and enhance winter avalanche safety.

The Wasatch Mountains, in particular Big and Little Cottonwood Canyons, are high-frequency avalanche areas. The weather and terrain of the mountains, combined with the ease of accessibility and a large active population nearby, lead to many human-triggered avalanches each year. The Forest Service Utah Avalanche Center and the Friends of the Utah Avalanche Center take on the heavy responsibility of keeping winter recreationalists safe in the backcountry. Recommendations to help maintain and enhance winter avalanche backcountry safety include:

- Place avalanche awareness information at popular trailheads.
- Place transceiver check stations at all popular winter backcountry trailheads.
- Work with resorts to identify and maintain backcountry access points.
- Support backcountry avalanche forecasting operations.
- Increase support for avalanche awareness and educational opportunities.
- Strengthen avalanche safety funding mechanisms.

Geotourism—largely based on our remarkable landscapes—is a pillar of Utah’s economy. We can further leverage our natural assets by embracing geotourism. Geotourism is tourism that sustains the character of a place—its environment, culture, aesthetics, heritage, and residents.
7. Develop a Climbing Management Plan for Big and Little Cottonwood Canyons to address the needs of the climbing community.

The number of people rock climbing and bouldering has increased significantly in the last 20 years in the Wasatch Mountains. The quality and proximity of climbing areas to a major urban population are unique to the Wasatch. The Cottonwood Canyons are known for their challenging granite routes that draw visitors from around the world. Despite the large numbers of climbers, the sport has remained largely unmanaged. Increased use has brought increased concerns. Issues such as parking, liability, and the consolidation of social trails need to be studied in detail to properly manage this unique recreational resource. The Plan should reflect the current use conditions as well as likely future use conditions and include:

- Protection of sensitive or threatened, plants, animals or ecological communities.
- Support for community climber educational opportunities.
- Public transit service to climbing areas. Buses will need storage space for climbing gear.
- Consolidating access trails and building them to standard.
- Providing and maintaining climber access parking.
- Restroom facilities at area access trailheads to protect the watershed.
- Easements for trail and climbing access.

8. Encourage cooperation among the resorts, Salt Lake County, U.S. Forest Service, Salt Lake City, and other partners to explore appropriate year-round activities at the ski resorts.

Cooperation is needed among public and private entities to shift the location of impacts due to recreational use. During the Wasatch Canyons Tomorrow process, the public supported the idea of managing the resource by relocating appropriate recreation from more sensitive natural areas to locations such as the ski resorts, where the infrastructure is in place and land has already been impacted.

- Foster cooperation to permit additional uses and activities.
- Explore opportunities for summer recreation improvements at the ski resorts, such as additional free-ride mountain bike trails.
- Evaluate the impacts of summer recreation at the ski resorts, to not overburden the area.

9. Promote lesser-used recreation areas in Salt Lake County to provide alternatives to the more-used recreation areas in the Wasatch Canyons.

The public supported the idea of managing recreation by attempting to provide options and relocating users from heavier-used, more-sensitive natural areas to less-sensitive, less-used areas. Areas such as the Jordan River Parkway and Rose Canyon in the Oquirrh Mountains are recreational amenities that often go underutilized and could help to deflect impacts away from the Wasatch Canyons.
The significant growth in recreational visits to the Wasatch Canyons strains the existing transportation network, which transportation officials already deem to be near capacity. Ensuring continued access to the canyons, while protecting the watershed and natural environment, are perhaps the most critical questions facing the future of our Wasatch Canyons. Transportation solutions need to be innovative. Safety and mobility are the primary concerns within the canyons, but the transportation strategies must also address watershed protection, avalanche hazard, wilderness areas, sensitive environmental areas, and terrain limits, such as steep slopes.

Big and Little Cottonwood Canyons are home to four world-class ski areas. Future transportation plans should enhance these crucial economic drivers. Transportation approaches that harm these businesses will negatively impact the state’s economy and quality of life.

While private vehicle access is convenient, the impacts of our reliance on single-occupant private vehicles is beginning to take its toll, especially in the canyons. Consider this: in many canyons the roads are near capacity, the canyons offer limited parking, runoff of oil and other automotive fluids degrade the streams, there are frequent collisions between automobiles and wildlife, bicycle-car conflicts are growing, and the winter air quality along the Wasatch Front is among the worst in the nation. A balanced transportation strategy is needed to help maintain and preserve the character of the canyons.

*Wasatch Canyons Tomorrow* participants expressed overwhelming support for an increase in public transportation service and amenities. For example, 88% of participants favored expanding year-round public transportation in Big and Little Cottonwood Canyons, and 90% favored extending transit service from Salt Lake City to Summit County. In response, the *Wasatch Canyons Tomorrow* Steering and Technical Committees evaluated many public transportation improvements.

The concept of an aerial tram system connecting Park City to Big and Little Cottonwood Canyons received less public support (58%) than the strategies recommended here. The Steering Committee recognized that such a connection could reduce the amount of traffic from Summit County and make our ski resorts more competitive, but could also reduce backcountry recreation areas and increase visitation and associated impacts. While controversial, a transportation connection received sufficient support to justify future consideration.
The following recommendations are intended to help Salt Lake County and partners realize the Transportation Goal:

1. Expand from winter-only to year-round transit service in Big and Little Cottonwood Canyons.

According to UDOT, traffic counts conducted at the mouths of both Big and Little Cottonwood Canyons indicate that summer-season traffic is approaching winter-season traffic in volume. Currently, buses serve the two canyons during the ski season, but these operations are suspended during the late spring, summer and fall months. Eighty-eight percent of those polled during this process favored expanding public transportation year-round in Big and Little Cottonwood Canyons.

- Address the need for public transit to serve dispersed recreation access areas, such as more frequent mass transit service from the mouth of Big Cottonwood Canyon to Little Cottonwood Canyon, making cross-canyon ski touring or hiking more feasible without a car shuttle.
- Address how public transit could accommodate different user groups. Recreational equipment such as mountain bikes and climbing gear needs to be considered.

2. Continue to look for and promote ways to improve road-cycling safety for both transportation and recreation.

In recent years, cycling has become more popular in the canyons. Cyclists use the roads in the canyons for fitness, recreation, and as transportation. Unfortunately, the canyons’ traffic, steep grades, narrow shoulders and sharp corners tend to be an especially hazardous place for cycling. The key recommendation in this section is a regional road-cycling safety study to analyze how engineering, route designation, bike lanes, education, and additional traffic enforcement could make road-cycling safer in the Wasatch Canyons.

- Consider doubling the fines for speeding in Millcreek Canyon to reduce potential for accidents between cars, bikes and pedestrians.
3. Prepare and implement updated road corridor avalanche control plans for Big and Little Cottonwood Canyons.

UDOT avalanche control crews do an excellent job of making travel safer in the canyons, but avalanches are still an obvious safety concern in both Big and Little Cottonwood Canyons. During the winter months, the roads in the canyons are filled to capacity and generally there is a steady stream of automobiles traveling the roadway in avalanche zones. Avalanches threaten the safety of both people and property. This problem is often compounded when an avalanche crosses the road, trapping and backing-up automobiles in other avalanche run-out zones. The existing SR-210 Transportation Study (Fehr & Peers and Associates) made critical first steps and recommendations toward safer travel conditions in Little Cottonwood Canyon. However, follow-up studies need to be instituted to prioritize, phase and implement the SR-210 Study recommendations. The study should address the most recent artillery status, alternative technologies such as GasEX installations, avalanche sheds, congestion mitigation, and any available state or federal funding and management programs.
4. Study the feasibility of extending UTA TRAX to a “transit hub” at the mouth of Big Cottonwood Canyon or Little Cottonwood Canyon to serve shuttles and buses to Millcreek and Big and Little Cottonwood Canyons.

I would like to see a fee for individual cars going up the canyons and that fee should go towards subsidized bus fare or improving recreational facilities in the canyons. This will give individuals the incentive to take the bus, but allow people to still take their cars up the canyons if needed.

—Cottonwood Heights resident.

Extending Utah Transit Authority’s TRAX line to a central transit hub on the east bench of the Salt Lake Valley enjoys broad public support. This proposed transit hub could serve the winter tourism industry and allow many east-side residents to have convenient access to light rail by tying into the public transit system already in place. A transit hub/visitor center near the mouth of Big or Little Cottonwood Canyon would be a natural point of departure for buses or possible future mountain rail. During the Wasatch Canyons Tomorrow process, 73% of the public supported further feasibility studies for a transit hub at the mouth of Big or Little Cottonwood Canyon. The study should include an in-depth look at state and federal programs that help fund transit centers.

An example of a transit/visitor center located at the mouth of Big Cottonwood Canyon
5. Develop Express Bus transit service between downtown Salt Lake City and Summit County/Park City.

Currently, Park City Transit offers fixed-route and on-demand transit services within Park City and has contracted with Summit County to provide fixed-route and on-demand transit services to the Snyderville Basin area. However, there is no transit coverage between these systems and the Utah Transit Authority’s service area. Data on inter-county commuting patterns and high concentrations of recreational areas and tourist destinations suggest a significant demand for a public transportation connection. There is also strong public support for this idea, with 90% of those surveyed supporting transit service to Summit County.

6. Conduct a feasibility study of extending a mountain rail line up Little Cottonwood Canyon to Snowbird and Alta.

Wasatch Canyons Tomorrow asked participants to consider needs well into the future. One long-term option is mountain rail. Anticipated growth will make the Wasatch Front a different place with different transportation needs. Governmental and transportation agencies should assess whether mountain rail is a practical and a cost-effective option to connect the valley floor with the mountain areas. Preliminary studies and estimates of construction costs, ridership, air quality, traffic, economic and environmental impacts suggest further consideration of mountain rail is warranted.
In the future, with increasing canyon use, it will become paramount to transport people in an efficient, environmentally sensitive manner. Reducing vehicle miles traveled in the canyons would be a significant step toward that goal. Therefore, while a mountain rail line is not likely to be built in the near term, steps to evaluate its future feasibility should start soon. Key issues to include in a study include:

- Ridership
- Funding mechanisms
- Environmental and watershed impacts
- Right-of-way and track alignments
- Operating and construction costs
- Economic benefits
- Impacts on other transportation modes

Mountain areas cover 41% of the European Union’s territory and their experience can be useful here. For example:

- The Alpine Convention aims for long-term protection of the natural ecosystem of the Alps and pursues the challenge of “seeking a balance between a viable economic development and sustainability”. Information about The Alpine Convention can be found at: www.alpconv.org.
- The Alpine Space Program's overall aim is to increase the competitiveness and the attractiveness of the area in a sustainable way. It supports transnational projects in the area fostering territorial development and cohesion. Information can be found at: www.alpine-space.eu.
- The Alliance in the Alps is an association of local authorities and regions from seven Alpine states that was founded in 1997. Its members and citizens strive to develop their alpine living environment in a sustainable way. Information can be found at: www.alleanzalpi.org.

7. Study the feasibility of alternative transportation for Millcreek Canyon.

Millcreek Canyon is one of the more popular recreation areas in the Wasatch. Canyon users utilize this canyon for picnicking, cycling, climbing, XC skiing, dog walking and numerous other activities. The U.S. Forest Service is currently conducting a study on this county road to analyze how improvements can be made to cycling, shuttle system and safety facilities. Special consideration should be given to improving transit supporting dispersed recreation, including transit that allows dog use.
8. Implement recommendations from the Big and Little Cottonwood Canyon Scenic Byways Corridor Management Plan. (See page 18)

Big Cottonwood Canyon

Storm Mountain Picnic Area: Explore possibilities for site redesign to enhance picnicking, fishing, interpretation, and access to climbing. Address roadside parking and provide enhanced pedestrian facilities and a transit stop.

Big Cottonwood Canyon Gateway: Redesign the “park-and-ride” facility to create a canyon gateway center and first-rate transit station. Add gateway signage, interpretation, byway information, transit enhancements, ride sharing, and chain-up area.

Silver Lake Center: Improve the site by creating an enhanced transit stop and winter-time interpretive center.

Mill D/Cardiff: Redesign the site to organize parking, buffer the site from the roadway, add an enhanced transit stop, and create an interpretive area with an overlook.

Mill B (S-Curve) Trailheads: Provide enhanced pedestrian and transit facilities to discourage roadside parking. Use visitor information to redirect high use to other sites.
White Pine Trailhead: Redesign the entrance to improve roadway safety, study parking to maximize existing space, add a year-round transit stop, and add interpretation.

Alta/Albion Basin: Study potential Little Cottonwood Canyon visitor, transit, and interpretive center. Enhance interpretation and study transit options for Albion Basin.

Grit Mill: Study a climbing trailhead and bus stop. Add restroom facilities and formalize or designate trails to climbing areas.

Little Cottonwood Canyon Gateway: Redesign the park-and-ride and Temple Quarry Trailhead to add gateway signage, interpretation, byway information, transit enhancements and ride sharing area. Improve circulation and provide recreation information.
Introduction

Throughout this process, many people sent a particular message: “We like the Wasatch Canyons the way they are. Please do not change them.” While this statement is understandable, it does not necessarily follow that canyon management approaches should remain static. As we look 20 to 30 years into the future, growth will significantly change our region and impact the Wasatch Canyons. If we want things to “remain as they are,” we may need to adopt new management techniques and adapt existing policies to maintain and protect what we have.

*Wasatch Canyons Tomorrow* identified a common set of goals and principles for the future of the Wasatch Canyons. With these common goals, which have been outlined in previous chapters, we can move beyond asking, “What do we want?” and move toward asking, “How do we get there?” The broad public participation, an integral part of this process, makes the vision and implementation strategy politically feasible. Pressure from population growth and development will continue in the canyons, and what form it takes and what impact it has depends on the choices we make today.

This chapter outlines those with primary responsibility to accomplish the public’s goals. Governmental agencies having jurisdiction in the canyons must, of course, take into account their respective legal requirements and political and fiscal realities. Interested stakeholders should be included as an integral part of implementing the recommendations.
Land Use Goal Statement:
Prioritize protection of high-priority lands (such as watershed, viewshed, recreation areas, and wildlife habitat), while respecting private property rights.

Land Use Background
The unique geography and environmentally sensitive land within the Wasatch Canyons makes land use an important concern for decision makers. Significant additional development could occur on private lots within the canyons. Many areas in the canyons may not be suitable for development. Some contain steep, highly erodible slopes or are in marsh, meadow and riparian areas, which help absorb and settle out sediment before runoff. Many areas in the canyons are key wildlife habitat or recreation access points. At the same time, property owners in the canyons must have their rights protected. All of these concerns need to be considered when making decisions about land use in the Wasatch Canyons. The public supports the land use solutions presented in the table below.

Land Use Recommendations

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location</th>
<th>Agency/Jurisdiction (Lead Agency in Bold)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Enforce existing provisions of the Foothill and Canyon Overlay Zone (FCOZ). Restrict variances that circumvent these protections.</td>
<td>Big/Little Cottonwood, Emigration, Parleys, Millcreek Canyons, and Unincorporated Salt Lake County</td>
<td>Salt Lake County</td>
</tr>
<tr>
<td>2. Increase funding for purchase of sensitive lands.</td>
<td>All Canyons in the Study Area</td>
<td>Salt Lake County, Salt Lake City</td>
</tr>
<tr>
<td>3. Work with the State Water Quality Board to fund revolving loans to incentivize older homes to upgrade septic systems or pay for connections to water/sewer lines.</td>
<td>Big/Little Cottonwood, Emigration, Parleys and Millcreek Canyons</td>
<td>State Water Quality Board, Salt Lake County, Salt Lake Valley Health Dept., Salt Lake Value Public Utilities</td>
</tr>
<tr>
<td>4. Study strategies to incentivize development in appropriate areas and preserve open space (for watershed, recreation, scenic value and wildlife).</td>
<td>Big/Little Cottonwood, Emigration, Parleys and Millcreek Canyons</td>
<td>Salt Lake County, Salt Lake City, USFS, Salt Lake Valley Health Dept.</td>
</tr>
</tbody>
</table>
Recreation Background

The Salt Lake Valley is known for its high quality of life and without question outdoor recreation is a factor in the equation. Decision-makers are faced with the task of making informed and sensible decisions that are in-line with the recreation wants and needs of the residents, while not overburdening the resources that makes the Wasatch so great.

Recreation Recommendations

<table>
<thead>
<tr>
<th>Recommendation</th>
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<tbody>
<tr>
<td>1. Study the feasibility of a parking pass to access recreational areas in Big and Little Cottonwood Canyons.</td>
<td>Big/Little Cottonwood Canyons</td>
<td>USFS, Salt Lake County, Salt Lake City, UDOT, Resorts</td>
</tr>
<tr>
<td>2. Acquire strategic land and/or easements for recreation access.</td>
<td>Big/Little Cottonwood, Emigration, Parleys and Millcreek Canyons</td>
<td>USFS, Salt Lake County, Salt Lake City, State of Utah DNR</td>
</tr>
<tr>
<td>3. Conduct a Capacity Study for trails in the Wasatch Canyons.</td>
<td>Big/Little Cottonwood, Emigration, Parleys, Millcreek, and City Creek Canyons</td>
<td>USFS, Salt Lake County, Salt Lake City, State of Utah</td>
</tr>
<tr>
<td>4. Develop a Master Trails Plan to explore new regional trails and trail connections for appropriate uses.</td>
<td>Big/Little Cottonwood, Emigration, Parleys, Millcreek, and City Creek Canyons</td>
<td>Salt Lake County, USFS, Salt Lake City, State of Utah</td>
</tr>
<tr>
<td>5. Further pursue recommendations of the Emigration Trails Master Plan.</td>
<td>Emigration and Parleys Canyons</td>
<td>Salt Lake County, Salt Lake City, State of Utah, USFS</td>
</tr>
<tr>
<td>6. Maintain and enhance winter avalanche safety.</td>
<td>Big/Little Cottonwood, Emigration, Parleys, Millcreek, and City Creek Canyons</td>
<td>USFS, UDOT, Resorts, Utah Avalanche Center, Salt Lake County, State of Utah</td>
</tr>
<tr>
<td>7. Develop a Climbing Management Plan for Big and Little Cottonwood Canyons to address the needs of the climbing community.</td>
<td>Big/Little Cottonwood Canyons</td>
<td>USFS, Salt Lake County, UDOT, Salt Lake City, Climbing Groups</td>
</tr>
<tr>
<td>8. Encourage cooperation among the Resorts, County, U.S. Forest Service, Salt Lake City, and other partners to explore appropriate year-round activities at the ski resorts.</td>
<td>Big/Little Cottonwood Canyons</td>
<td>Resorts, Salt Lake County, Salt Lake City, USFS</td>
</tr>
<tr>
<td>9. Promote lesser-used recreation areas in Salt Lake County to provide alternatives to the more-used recreation areas in the Wasatch Canyons.</td>
<td>Big/Little Cottonwood, Emigration, Parleys, Millcreek and City Creek Canyons</td>
<td>Salt Lake County, Salt Lake City, State of Utah, USFS</td>
</tr>
</tbody>
</table>
**TRANSPORTATION GOAL STATEMENT:**
Transportation projects should reduce congestion, improve air quality, and facilitate access and public safety, while maintaining our high-quality recreational experience and protecting natural resources.

**Transportation Background**

Because of the geographic proximity of the populated Salt Lake Valley to the mountainous Wasatch Canyons, millions of people visit the canyons each year. In fact, the Uinta-Wasatch-Cache National Forest is among the five most heavily visited national forests in the country. Millions of visitors take advantage of the downhill skiing, hiking, picnicking, bicycling and other outdoor opportunities each year. This demand creates existing and potential transportation problems in the canyons. One of the main purposes of this study is to perform a general analysis of the existing transportation facilities within the canyons and to identify feasible short and long-term future transportation solutions. The public supports the transportation solutions presented below.

**Transportation Recommendations**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location</th>
<th>Agency/Jurisdiction (Lead Agency in Bold)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Expand winter-only to year-round transit service in Big and Little Cottonwood Canyons.</td>
<td>Big/Little Cottonwood Canyons</td>
<td>UTA, UDOT, Salt Lake County, USFS</td>
</tr>
<tr>
<td>2. Continue to look for and promote ways to improve road-cycling safety for both transportation and recreation.</td>
<td>Big/Little Cottonwood, Emigration, Parleys and Millcreek Canyons</td>
<td>UDOT, Salt Lake County, Salt Lake City, USFS</td>
</tr>
<tr>
<td>3. Prepare and implement updated road corridor avalanche control plans for Big and Little Cottonwood Canyons.</td>
<td>Big/Little Cottonwood Canyon</td>
<td>USFS, Salt Lake County, Town of Alta, Salt Lake City, Resorts, Utah Avalanche Center</td>
</tr>
<tr>
<td>4. Study feasibility of extending UTA TRAX to a “transit hub” at the mouth of Big Cottonwood Canyon or Little Cottonwood Canyon to serve shuttles and buses to Millcreek, Big and Little Cottonwood Canyons.</td>
<td>East Bench, Tri-Canyons</td>
<td>UTA, UDOT, Cottonwood Heights, Sandy, Salt Lake County, Salt Lake City</td>
</tr>
<tr>
<td>5. Develop Express Bus transit service between Downtown Salt Lake City and Summit County/Park City.</td>
<td>Parleys Canyon</td>
<td>UTA, UDOT, Salt Lake County, Summit County, Park City, Salt Lake City</td>
</tr>
<tr>
<td>6. Conduct a feasibility study of extending a mountain rail line up Little Cottonwood Canyon to Snowbird and Alta.</td>
<td>Little Cottonwood Canyon, Salt Lake City, Sandy, Cottonwood Heights</td>
<td>UTA, UDOT, Resorts, Salt Lake County, USFS, Salt Lake City, Sandy, Cottonwood Heights</td>
</tr>
<tr>
<td>7. Study the feasibility of alternative transportation for Millcreek Canyon.</td>
<td>Millcreek Canyon</td>
<td>Salt Lake County, USFS, Boy Scouts of America</td>
</tr>
<tr>
<td>8. Implement recommendations from the Big and Little Cottonwood Canyon Corridor Management Plan.</td>
<td>Big/Little Cottonwood Canyons</td>
<td>USFS, UTA, UDOT, Resorts, Salt Lake City, Town of Alta</td>
</tr>
</tbody>
</table>
Conclusion

The people of Utah truly cherish the canyons for the richness, abundance and quality-of-life benefits that these canyons and mountains provide. The water supply flowing from the central Wasatch Canyons is the lifeblood of the Salt Lake Valley, which, along with robust recreational opportunities enhance the health, security and economic viability of the area. The Wasatch Canyons are truly a regional asset that needs to be safeguarded.

Each of the canyons in the study area is environmentally sensitive and worthy of our care and attention. As the population of the Salt Lake Valley grows, so do the impacts associated with growth. Our policies and management approaches will have to evolve to address changing impacts. Doing what we've done in the past will not necessarily keep the canyons as they are in perpetuity. Through Wasatch Canyons Tomorrow, a multiplicity of views has merged into a shared public vision of what we value about the canyons and the solutions to protect those values.

Wasatch Canyons Tomorrow has been about choices. As we make one decision, it often affects other choices. Humility and prudence should guide us. This report’s goal statements and corresponding recommendations are built on the values of residents, making the recommendations politically-supported and actionable. The continued protection and enjoyment of the Wasatch Canyons can be assured with the implementation of policies and practices which will sustain the resource.

Historically, the Wasatch Canyons sustained the early settlers. In many ways, they still sustain us today. Now is the time to be wise stewards of these majestic canyons so our children and grandchildren can enjoy all they have to offer.
This report is available online at

[Wasatch Canyons Tomorrow](http://www.wasatchcanyons.slco.org)