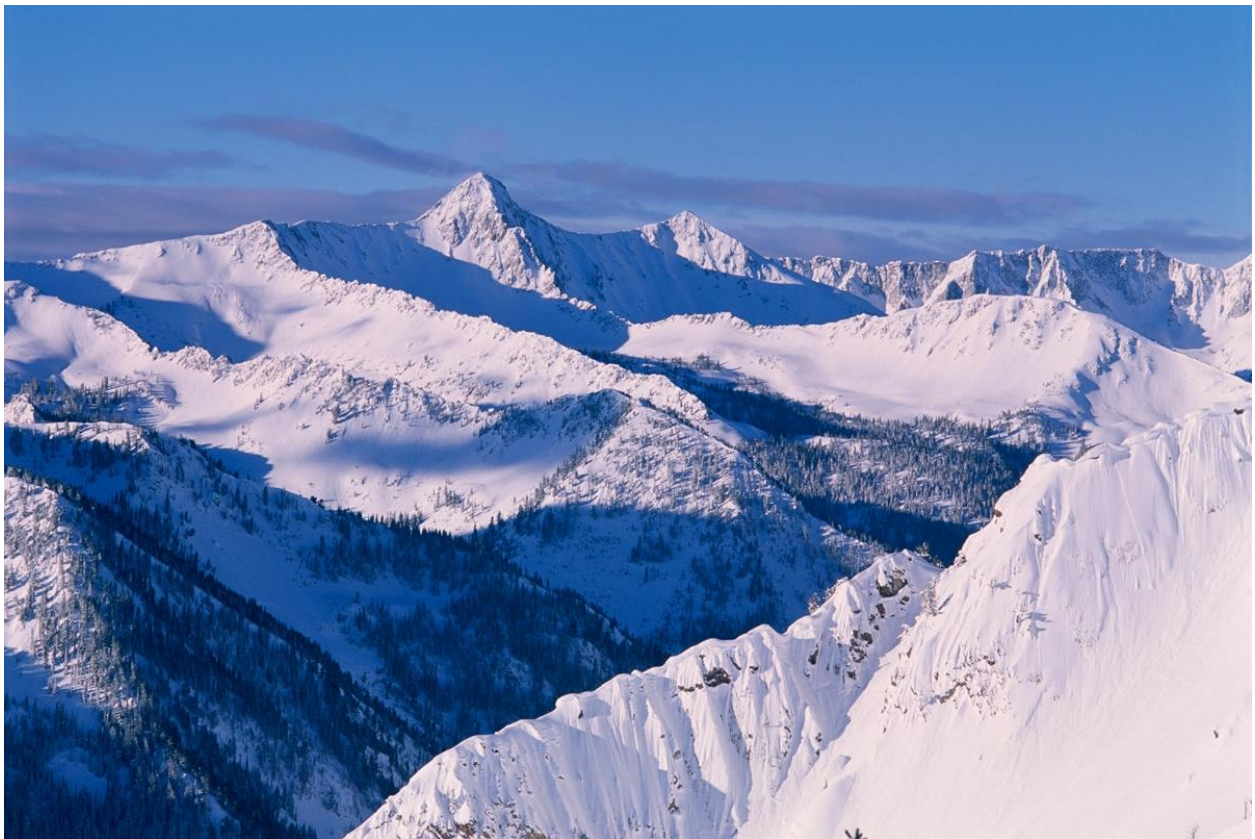


SAVE OUR CANYONS

Compiled by Save Our Canyons for consideration and reference to inform the Draft Statement of Purpose and Need for Little Cottonwood Canyon Environmental Impact Study (EIS). Wasatch Mountain transportation recommendations from 30 years of study and planning.



Wasatch Canyons Master Plan (1989)

- “THE HIGHWAY TRANSPORTATION GOAL OF THE PLAN IS TO REDUCE PRIVATE VEHICULAR TRAFFIC IN THE COTTONWOOD CANYONS DURING PEAK PERIODS. TO ACHIEVE THIS GOAL, MEASURES SHOULD BE IMPLEMENTED TO DISCOURAGE PRIVATE AUTOMOBILE USE AND TO ENCOURAGE USE OF MASS TRANSIT IN THE SHORT TERM. FOR THE LONGER TERM, A MOUNTAIN TRANSPORTATION SYSTEM SHOULD BE DESIGNED AND PURSUED.
- SUCCESS OF THESE MEASURES DEPENDS UPON PUBLIC/PRIVATE SECTOR COOPERATION, INTERGOVERNMENTAL COORDINATION, AND PUBLIC ACCEPTANCE.
- Affected jurisdictions should also pursue measures to enhance mass transit use. Park-and-ride/kiss-and-ride facilities to serve canyon mass transit are clearly needed immediately. This may mean a number of small lots or a centralized, efficient location. The location and sizes of the lot(s) should be based on transit efficiencies and Community acceptance. Salt Lake County should aggressively pursue a solution to this need. Establishment of multiple bus stops within the canyons and a shuttle service geared to dispersed recreation would help alleviate congestion from that use.
- In addition to governmental actions, each ski resort should develop, annually update and monitor a plan for the reduction of private automobiles specifically at that resort. Some resort options for mass transit incentives could have coincidental canyonwide benefits.
- Approval of any additional skiers at one time (SAOT) at a resort would require a resort evaluation and mitigation plan for V projected traffic effects on the existing or future transportation system resulting from the ski use expansion.
- Mass transit systems within the canyons may need to be further publicly subsidized to reduce prices as a further user incentive. In addition, the implementation of these measures will require additional special mass transit busses which are equipped to safely service the canyons.

Sandy City Watershed Management Plan (2002)

3. Join Salt Lake City in developing a Memorandum of Understanding (MOU) with the Utah Department of Transportation (UDOT) to manage and maintain canyon road surfaces with special attention to water quality (surface runoff, salt, and deicing, snow removal, etc.)

Page 2-27

pg. 2-27, I, 3.

Salt Lake Countywide Watershed - Water Quality Stewardship Plan

“Encourage UDOT to manage road surface with special attention paid to water quality.” Table 1.3, pg. 1-9 Little Cottonwood Canyon

“The highway transportation goal of the plan is to reduce private vehicular traffic in the Cottonwood Canyons during peak periods. The County should implement measures to achieve this goal, and discourage private automobile use and encourage mass transit.”

“Establishing park and ride facilities to serve Big and Little Cottonwood Canyons should occur immediately.” T 1.4, pg. 1-12

Revised Forest Plan - Wasatch Cache National Forest - Central Wasatch Area (2003)

- “Providing quality recreation opportunities within the framework of watershed protection will be an increasing challenge as the Wasatch front population and national and international destination use of the area continues to grow. Continued coordination and cooperation among federal, state, and local government agencies, residents, businesses, and the recreating public will be imperative in order to meet these growing demands.” – pgs 4-153 – 4-154
- “Protection of watershed conditions will be a primary factor in managing roads, trails and access. In the Tri-canyon area (Big and Little Cottonwood Canyons and Mill Creek) parking capacities of canyon parking lots (ski areas, summer use homes, developed and dispersed recreation sites) will be not exceed 2000 levels unless modification is needed for watershed protection or to facilitate mass transit. Mass transit will be commonly used during winter, reducing crowding and increasing safety for users of the canyons. The Forest Service will work actively with other parties to explore options for reducing private vehicular use within these Canyons.” – page 4-160
- “The ski resorts in Big and Little Cottonwood Canyons will continue to serve as hubs of year-round outdoor recreation use on both private and public lands within the permit areas. Recreation opportunities offered on public lands within the resort boundaries will be complementary to and compatible with those that are allowed and/or emphasized on surrounding public lands outside the boundaries. Opportunities that build on the unique values of public land are featured over those that are focused on the constructed environment.” pg 4-160
- “New resort developments on National Forest System lands will be confined to the permit boundaries in effect at the time of revision, though small-scale site-specific adjustments could be considered to address important management issues.” -- pg 4-161

Little Cottonwood Canyon Avalanche Study (2006)

<http://arc.lib.montana.edu/snow-science/objects/issw-2006-907-909.pdf>

VI. ALTERNATIVES

There are two very fundamental ways to lower the AHI: change the road and how avalanches affect it, or change traffic characteristics. The graphic below illustrates the strategies evaluated in this study, and how they relate to these two fundamental methods.



There are two ways to change the road: “active” and “passive” measures. Active measures influence how snow is managed by technology and/or people. Active measures analyzed in this study include Gaz-ex exploders; increasing the current artillery program; and using infrasound to improve slide detection. Passive measures are structural changes to the road. They are permanent and as such can have impacts to the built and natural environment in the canyon. Examples of passive measures analyzed in this study include realigning the road to avoid slide paths; construct snow sheds so that snow goes over the road; and build berms to deflect or absorb as much of the slide as possible.

The other fundamental way to influence the AHI is by changing traffic. As traffic increases, speeds decrease, and the AHI rises. Reducing the number of cars on the road allows the remaining cars to go faster, which decreases the avalanche risk. This can be accomplished through increased transit service; better use of park-and-rides; improved travel information for drivers; and making sure traffic exits the resorts at day’s end in an efficient manner.

VII. RECOMMENDATIONS

Short term recommendations include:

- Additional artillery at Tanner's Flat
- Infrasound detectors
- Improve berms
- Install Gaz-ex at the Hilton slide area
- Implementing an ITS project for park-and-ride management, and for improvements to canyon communication systems
- Explore driveway metering

The intent of this study was to explore, analyze and present long term options. Because the long term solution has so many

possible combinations, relative high costs, and likely high levels of regulatory hurdles, there are no specific long term recommendations. Those should be decided through a more formal process, likely triggered by a NEPA process. Stakeholders in the canyon should pursue funding for a larger NEPA study that will analyze the costs (both in dollars and impacts) and benefits of large infrastructure changes, be that transit, snow sheds, toll road, tunnel, or road realignment.

In the meantime, there are two additional recommendations. First, continue to promote the use of alternatives to the private vehicle. Increased bus service and transit amenities should be encouraged. The added amenities at Snowbird's Creekside Lodge are excellent examples of how the resorts can support transit use.

Second, continue to support the "human element" of canyon operations. SR-210's great safety record is due to the high level of dedication, training, and collaboration of UDOT, S.L. County Sheriff, USFS, and resort snow safety personnel. This public/private partnership has functioned well, albeit with some bumps along the way, for many years. Regardless of future technology, infrastructure, or changes in the way the canyon risks are managed, this human element must be continued.

Cottonwood Canyons Scenic Byways Study (2008)

https://travel.utah.gov/wp-content/uploads/CMP_121608_portable.pdf

Goal: Improve travel conditions on the Byways

Strategy: Use transportation demand management (TDM) strategies to reduce congestion along the Byways, while still providing access to recreation amenities.

Reducing auto trips while still maintaining access to recreation areas along each of the Byways is a central component to the Corridor Management Plan. A suite of strategies should be implemented to improve the options for travel, and manage the overall demand for autos along the Byways. Strategies include providing information to drivers on areas where carpooling can occur, as well as a ‘casual carpooler’ program available online. Transit service should be expanded, as discussed below, and transit amenities should make travel by bus comfortable and convenient. Outlying parking can be used to promote additional carpooling or transit use at the mouth of each canyon, and school districts should be approached for their interest in shared use parking on weekends. Resorts and businesses should encourage employees to carpool and take transit. The Byways Committee should discuss with resorts the possibility of implementing parking pricing strategies to discourage single occupant driving.

Strategy: Create a year-round transit system as an alternative to driving and parking in the Cottonwood Canyons.

Demand exists now for summer transit service in the Cottonwood Canyons. As the resort areas continue to develop and diversify, parking resources will become more and more limited while demand on the transportation networks will simultaneously increase.

A year-round transit system in both Canyons can provide access both to resort area visitors and recreationists utilizing public lands. An increase in transit service should be accompanied by improvements to transit facilities: better user comfort and aesthetics at transit stops, bus priority infrastructure, increased safety and security, and park-and-ride facilities. Express buses to Cottonwood Canyons destinations from select locations in the Salt Lake Valley should be considered.

Strategy: Create a Parking Management Plan.

A comprehensive year-round Parking Management Plan will address parking issues at both developed and informal activity sites in the Cottonwood Canyons. The goal of the parking management plan should be to improve access to parking while enhancing user safety and protecting natural resources. The parking management plan should address USFS’s stated intent of no net parking increases on National Forest System lands, and how additional parking demand generated by canyon activities can be met elsewhere. Components of the parking management plan should include enforcement of existing parking restrictions (particularly along SR-210 and the Alta Bypass Road); official evaluation of currently informal parking areas at trailheads; parking pricing strategies at the resorts; capacity study and possible expansion of park-and-ride lots; and utilization of technology to provide drivers with accurate real-time information about parking resources. Parking Management Plan efforts should be coordinated with the year-round transit system plans to ensure cohesive and sensible connections between parking and transit.

Strategy: Promote and monitor cyclist and pedestrian safety.

The Cottonwood Canyons Scenic Byways should offer safe recreation opportunities for bicyclists and pedestrians in addition to drivers. The Byways are already popular destinations for cyclists, and additional actions can be taken to increase cyclist accommodations. Debris should be cleared from the roadway more frequently, as it poses a hazard to cyclists traveling downhill at high speeds. Interpretive materials for Byway users could provide “share the road” information, such as the local law requiring a three-foot clearance between cyclists and passing cars. Bicycle paths (as opposed to bicycle lanes) should be considered in the Cottonwood Canyons where feasible, to provide cycling opportunities for novice cyclists and others that are uncomfortable riding directly in traffic. Pedestrian safety at high-activity areas should be improved through enhanced crossings and signage for drivers.

Goal: Disseminate important information through a variety of outlets to improve the traveler experience

Strategy: Create a Scenic Byways Visitor/Transit Center.

A visitor/transit center should be established for the Cottonwood Canyons Scenic Byways. The center’s location should be easily accessible to visitors and have adequate space to act as a major transit hub and parking facility. The visitor/transit center should act as a welcoming place and could offer roadway information and regulations, historic background of the Byways, and interpretive guides. The visitor/transit center should provide enhanced transit amenities; ideally, visitors to the Cottonwood Canyons would stop at the visitor center prior to reaching the Byways and opt to utilize transit services instead of driving. The visitor/transit center can also provide information for visitors on wild- life viewing and watershed protection.

Wasatch Canyons Tomorrow (2010)

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 the natural environment.

Transportation Recommendations:

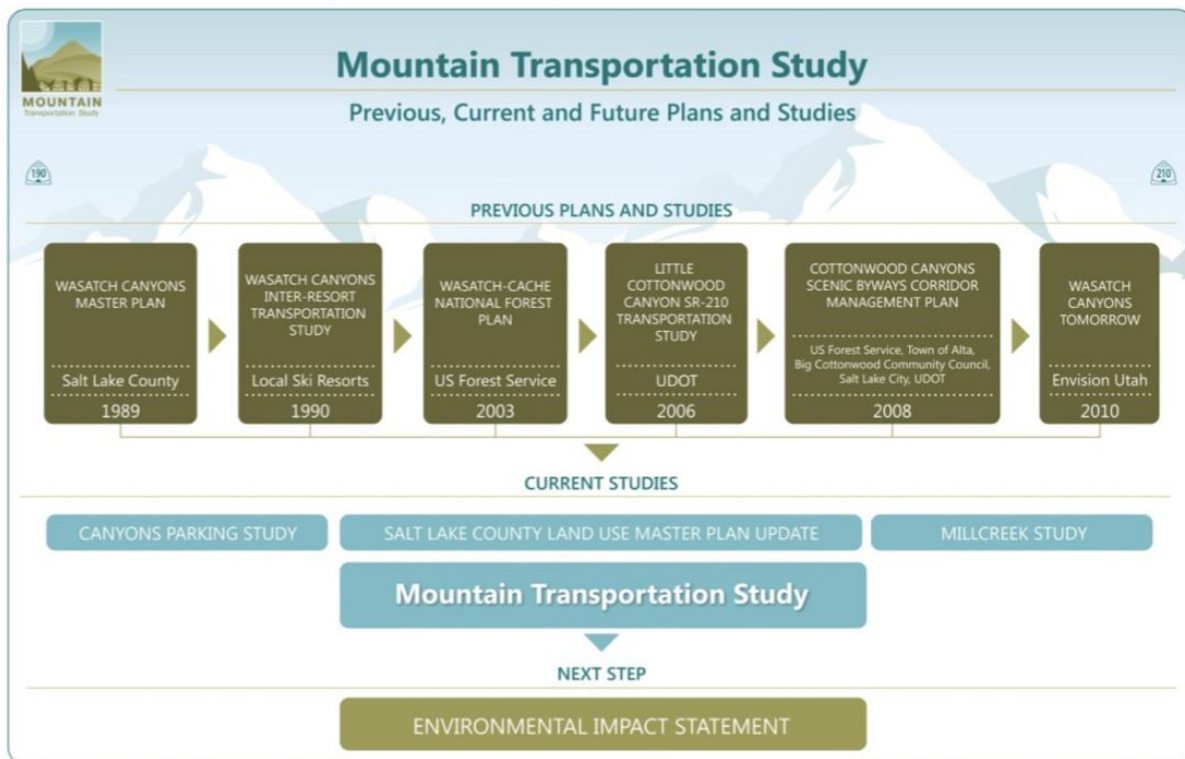
1. Expand winter only to year-round transit service in Big and Little Cottonwood Canyons.
2. Continue to look for and promote ways to improve road-cycling safety for both transportation and recreation.
3. Prepare and implement updated road corridor avalanche control plans for Big and Little Cottonwood Canyons.
4. Study 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.
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 Corridor Management Plan (*above mentioned Scenic ByWays Plan*).

Mountain Transportation Study (2012)

The Mountain Transportation Study was intended to bring together a diverse stakeholder group; develop consent on key topics, a deeper understanding of transportation to and within the Cottonwood Canyons, and a range of transportation solutions; and provide recommendations for next steps (see Figure ES-1). This study provides the following recommendations:

- Consider potential short-term transportation projects.
- Utilize a tiered Environmental Impact Statement (EIS) process for the next effort.
- Consider the Federal Transit Administration (FTA) as the lead agency with UTA, USFS, the Federal Highway Administration (FHWA), and potentially other agencies such as the U.S. Environmental Protection Agency (EPA) as joint leads.
- Evaluate regional trips during scoping and purpose and need development.
- As part of the Tier 1 EIS, include additional analyses of land use, watershed, multiple uses, and economic opportunities.

Figure ES-1: Previous, Current and Future Studies



FINDINGS

Data supports the numerous stakeholder comments concerning traffic congestion on peak days during the winter ski season. A model was developed to estimate vehicle trips based largely on skier visits. As skier visits increase, whether due to natural growth or increased share of statewide skier visits, projected traffic is expected to worsen (see Figure ES-4). While modeling was conducted associated with resort skier days, it is also important to recognize that increased vehicle trips might be associated with other year-round recreation uses. For example, there is considerable weekend traffic during the autumn colors.

A key outcome of the technical and stakeholder processes was a framework for a future purpose and need, stated below.

The purpose of the Mountain Transportation project is to:

- Facilitate safe, convenient, attractive, and reliable year-round access to and within the Cottonwood Canyons.
- Increase transit use and decrease impacts associated with automobile use in the canyons.
- Increase the attractiveness of the region and support the tourism and recreation economies by improving connections between the canyons and the population base, the hospitality infrastructure, and the regional transit network in the Salt Lake Valley.
- Plan for future population growth and add to the quality of life of Salt Lake Valley residents.

Solutions will be ecologically, socially, and economically sustainable, i.e., they will meet present needs without compromising the ability of future generations to meet their needs. Specifically, solutions will:

- Support watershed protection and management objectives, and prevent degradation of watershed health and water quality, especially municipal source water areas.
- Support a diversity of recreation uses and maintain high-quality recreation experiences.
- Minimize noise, viewshed, air quality, and wildlife habitat impacts.
- Integrate land use and recreation objectives of the U.S. Forest Service, Salt Lake County, and Salt Lake City, recognizing that land use, transportation, and recreation are interdependent.
- Consider the diversity of recreation uses in the canyons, including cyclists and pedestrians.

Transportation modes—including auto, bus, bus rapid transit (BRT), rail, and aerial transportation—were evaluated based on multiple characteristics: capacity, costs, and speeds. Table ES-1 shows an example of these characteristics for the segment from the mouth of Little Cottonwood Canyon to Alta.

Each mode has benefits and challenges; the ultimate solution will be the subject of future analyses. This study provides a framework for alternative concepts that can be developed in more detail during a future NEPA process—when the purpose and need and logical termini are better understood.

Proposed Action

The Federal Transit Administration, Utah Transit Authority, U.S. Forest Service, and [list other lead agencies] intend to prepare a Tier 1 Environmental Impact Statement for the Mountain Transportation project. The Mountain Transportation project will facilitate safe, convenient, attractive, and reliable year-round transit access to and within the Cottonwood Canyons. The project may include fixed-guideway improvements (such as bus rapid transit, rail, or aerial gondola) to connect the regional UTA transit system in the Salt Lake Valley to the recreation activities in the Cottonwood Canyons, and potentially to the recreation activities in the Park City and Summit County areas. The project will be ecologically, socially, and economically sustainable, i.e., it will meet present needs without compromising the ability of future generations to meet their needs and it will improve, or at a minimum, not degrade the Cottonwood Canyons' natural environment and municipal watersheds.

Mountain Accord Transportation Study Recommendations (2016)

Proposed Scenario for Further Evaluation and Public Discussion

The scenario proposes to manage growth by shifting from more impactful modes (autos) to less impactful modes (transit, walking, biking) and by directing higher levels of use to key recreation nodes that have the facilities to handle higher concentrations of people.

Roadside parking would be formalized in limited areas and restricted in other areas, making room for bike lanes (at least in the uphill direction) and reducing safety and environmental impacts associated with roadside parking.

Recreation nodes would include bus stops and pullouts, restrooms, ADA facilities, cross-walks, and connections to nearby trails.

Comparison of Current Conditions and Proposed Scenario

	Current Conditions	Proposed Scenario
Number of Cars on Peak Days	11,000	8,000
Average Occupancy Rate	1.8 people per car	2.2 people per car
Winter Transit Use	4-5%	20%
Summer Transit	Virtually no summer transit	New service, schedule TBD
Parking Spaces in the Valley	2,900	5,400 to 5,900
Parking Spaces in the Canyons	9,600 formal and informal spaces (<i>There are at least 6,000 formal spaces at ski resorts and most of the remaining parking spaces are informal.</i>)	Parking to be formalized, restricted, and enforced. Number of formal spaces to be determined through NEPA process, but assumed to be much less than 9,600.
Cycling Facilities	Shoulders of varied width	Bike lane in uphill direction

PURPOSE AND PROBLEM STATEMENT

The purpose statement describes what purpose the transportation infrastructure serves and the reason improvements are needed in the Cottonwood canyons. The main purpose of the transportation system in the Cottonwood canyons today is to serve recreation activities (commercial and dispersed) for locals as well as tourists. Residents of the canyons (estimated at fewer than 500) and employees of the ski resorts and other canyon businesses also use the roads. The ski resorts estimate about 2,000 employees travel into the canyons on a peak winter day (out of a total of 20,900 people traveling into Big and Little Cottonwood canyons).

Transportation and canyon stewardship improvements are needed because the growth in recreation use is exceeding the capacity of the current auto-based infrastructure and impacting natural resources.

The proposed purpose for improvements in the Cottonwood canyons is to accommodate and manage growth in recreation uses while minimizing impacts to natural resources and maintaining positive recreation experiences. Safety is also always a critical factor. There are opportunities to improve safety associated with avalanche mitigation, incident/emergency response, and pedestrians/cyclists, among others.

The proposed purpose is based on public feedback, the problems described below and further documented in WSP/PB reports, the Accord, and Mountain Accord System Group reports (Existing Conditions, Idealized Systems). The purpose statement will undergo agency and public review if a NEPA process is initiated.

(https://drive.google.com/drive/folders/1Cn80Wzst8eoa0o_BqoTBHOPfPm8M6MIe)

Land Use

13.3.2 Management Objective

Land uses on public lands should prioritize resource protection and environmental stewardship over resource development. Salt Lake County supports restrictive land use designations, including Wilderness areas, roadless areas, and wild and scenic rivers.

30.1 Wildlife

- 3 **Context**
- 4 Salt Lake County enjoys a diverse and abundant wildlife population, which contributes to a productive
- 5 natural environment. Wildlife also yield important social and economic resources including recreation
- 6 opportunities such as photography, wildlife observation, and hunting.
- Utah's Wildlife Action Plan considers
- 18 key habitats and provides management strategies to improve the habitat's condition (see pages 73–123).
- 19 Also, the plan considers threats and provides actions to reduce the threats (see pages 124–216).[1]
- **30.2 Desired Future State**
- 14 Salt Lake County desires to maintain healthy native wildlife populations through the protection and
- 15 enhancement of habitat, natural landscapes, and ecosystems in the county.
- 17 **30.3 Management Objectives and Associated Policies**
- 18 **and Guidelines**

20 30.3.1 Management Objective

- 21 Support land management actions that keep native species off the Endangered Species List. Provide for
- 22 sustained diversity of species at the genetic, population, community, and ecosystem levels. Maintain
- 23 communities within their historic range of variation that sustains habitats for viable populations of
- 24 species.

26 Policies and Guidelines

- Support public education programs that promote water conservation, wildfire prevention, and wildlife habitat.
- Support management objective to reduce future fragmentation of intact habitats. Provide connectivity in fragmented habitats and between habitats to promote genetic diversity in wildlife populations.

35 **30.3.2 Management Objective**

36 Support maintenance and improvement of existing aquatic habitats, including riparian and wetland habitat.

39 **Policies and Guidelines:**

- Support efforts and activities supporting watershed health and aquatic habitat as outlined in Salt Lake Counties 2015 Integrated Watershed Plan.[4]

30.3.4 Management Objective

- 15 Coordinate with DNR and the Utah Department of Transportation to reduce wildlife vehicle collisions on Salt Lake County roadways.

18 **Policies and Guidelines**

- Support mitigation projects which aim to mitigate wildlife vehicle collisions.
- Work with the UDWR and the Utah Department of Transportation to minimize adverse wildlife/public interaction

(https://drive.google.com/drive/folders/1Cn80Wzst8eoa0o_BqoTBHOPfPm8M6Mle)

- Transportation
 - Work with the UDWR and the Utah Department of Transportation to minimize adverse wildlife/public interactions;

- Access
 - TL2: Sustainable Development Patterns - Plan for compact growth, reduced sprawling development, and increased opportunities for people to access services and places of work

 - TL4: Pedestrian and Bicycle Infrastructure Improvements - Develop infrastructure for alternatives to on-road travel

- Roadways
 - TL1: Regional Transit Expansion - Explore and expand regional transit options especially from Summit County to/from Salt Lake City and Heber City

 - TL5: Alternately Powered Vehicles - Continue to promote alternately powered vehicles, as well as develop infrastructure to support using these vehicles

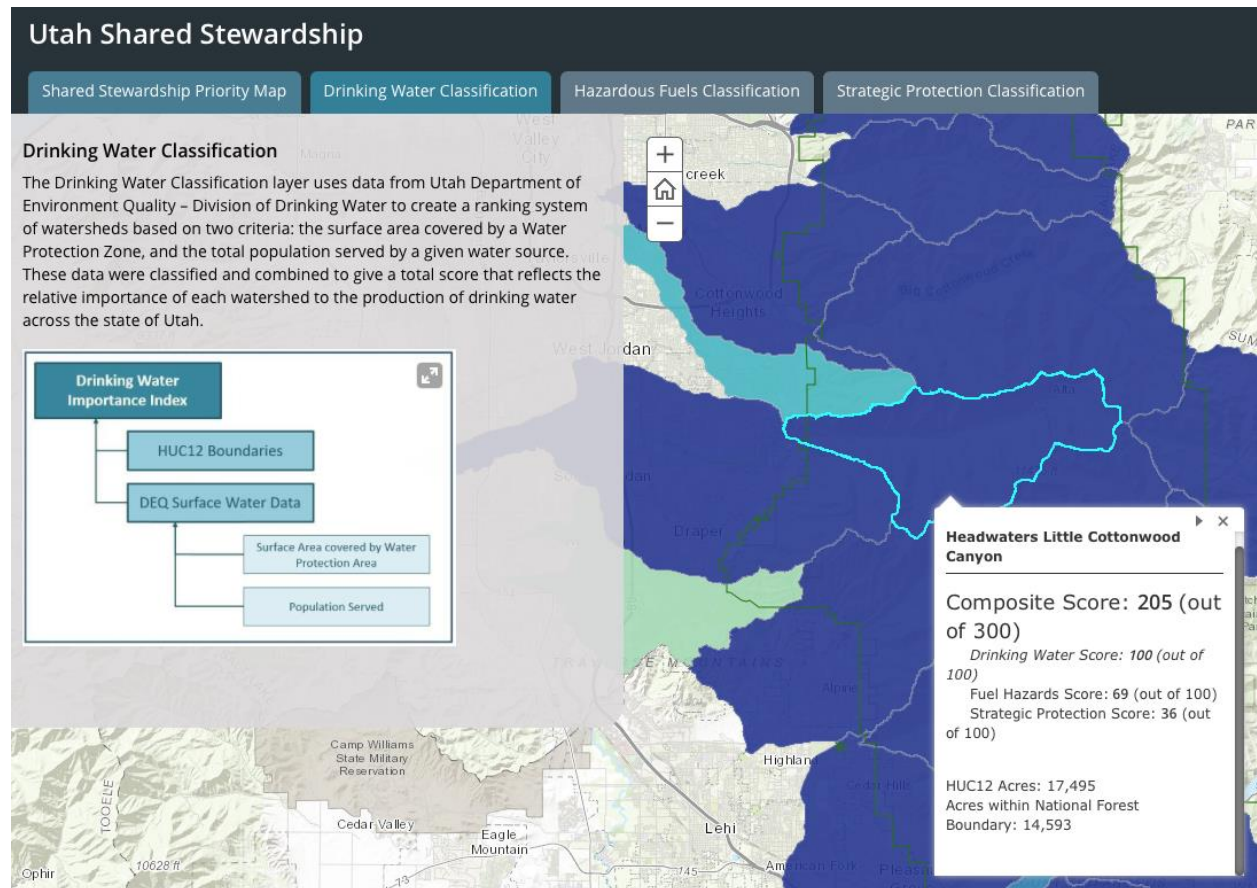
Under the agreement, the State of Utah and Forest Service will focus on landscape-scale forest restoration activities that protect at-risk communities and watersheds. Shared Stewardship responds to the urgent and growing challenges faced by managers and owners of forests in Utah and across the nation, among them catastrophic wildfires, invasive species, drought, and epidemics of forest insects and disease. Of particular concern are longer fire seasons and the increasing size and severity of wildfires, along with the expanding risk to communities, water sources, wildlife habitat, air quality, and the safety of firefighters.

Agreement: <https://www.usda.gov/media/press-releases/2019/05/22/usda-forest-service-and-state-utah-sign-shared-stewardship>

<https://www.fs.fed.us/managing-land/shared-stewardship>

Interactive Map:

<https://utahdnr.maps.arcgis.com/apps/MapSeries/index.html?appid=c28e4ada7c9443a3b3545b9a436f2435>



Wasatch Front Regional Council - Wasatch Choice 2050 (2019)

<https://wfrc.org/wasatch-choice-map/#sideBarClosed=false>

Wasatch Choice Map #wherematters

Vision **Transportation** Land Use Economic Development Recreation

A key strategy of the Wasatch Choice 2050 Vision is to provide transportation choices.

Major transportation projects, like freeways, rail & bus transit, interchange upgrades, widenings, and even regional trails or bikeways get their start through inclusion in the **Regional Transportation Plan (RTP)**. RTPs are updated every four years and look typically plan 25 or more years into the future.

This map shows projects in the most recent **2019-50 RTPs** that were adopted by the respective boards of elected officials for the **Wasatch Front Regional Council (WFRC)** and **Mountainland Association of Governments (MAG)** metropolitan areas.

Prior to adoption, the projects were prioritized after considering technical analysis of impacts and benefits and extensive stakeholder and public input.

Click on any project on the map to see detailed information including estimated costs and phasing.

Project Information	
Project ID	R-S-52
Project	Little Cottonwood Canyon Road
From	Wasatch Boulevard
To	End of Canyon
Project Type	Operational
2019 Lanes	2 / 3
2050 Lanes	2 / 3
2050 Functional Classification	UDOT minor arterial
2050 Right-of-Way (feet)	50.00
Needs Phase	1
Financially Constrained	1