

Transportation Observations, Considerations and Recommendations For the Tri-Canyons Area of the Salt Lake Ranger District Wasatch-Cache National Forest

(December 2006)

Field investigations of the current transportation infrastructure and operating systems were conducted for the Tri-Canyons by the inter-agency Transportation Assistance Group (TAG), on behalf of the U.S. Forest Service and local stakeholders. This “TAG” report was prepared subsequent to the site visit, held November 6-9, 2006. The TAG report documents a planning charrette intended to assess not only the present status of transportation facilities, but to identify challenges and opportunities to improve system safety, capacity and performance. The TAG endeavor was facilitated and funded via the Alternative Transportation in Parks and Public Lands (ATPPL) Program, as promulgated in SAFETEA – LU.



“Red Snake” Traffic Congestion, Little Cottonwood Canyon

Tri-Canyons: Background and Conditions

The increasingly popular Tri-Canyons area in the Salt Lake Ranger District of the Wasatch-Cache National Forest (WCNF) encompasses from north to south - Mill Creek Canyon (MCC), Big Cottonwood Canyon (BCC) and Little Cottonwood Canyon (LCC); and, is located to the east and immediately adjacent to the Salt Lake metropolitan region. Known as the Wasatch Front, this general region has a population of over two million and growing.

The Tri-Canyons area contains three designated wilderness units and four major ski venues (Solitude and Brighton in BCC; Snowbird and Alta in LCC), all located within 30 miles of Salt Lake City. Although the four skiing/boarding facilities are private ventures, they are operated by permit within the WCNF. Further development of “recreational terrain” is severely limited and approaching build-out within the ranger district. However, for example, Snowbird has plans to triple its overnight lodging capacity; and, based on comparisons with Colorado ski facilities, nearly twice the number of skiers could be accommodated on existing ski runs in the Tri-Canyons than are presently. Therefore, potential intensification of land uses both within the base/support facilities and on the slopes at these local venues may increase overall public demand, impacting the existing transportation infrastructure and system operations.

Although visitation in the Tri-Canyons is increasing throughout the year, the most intense public use occurs during winter, which provides diverse recreational activities: winter camping, snow shoeing, cross country skiing, snowmobiling, alpine skiing, snowboarding and ice climbing, etc. In the summer, the second busiest season, visitors hike and bike in the canyons, ride horses and mountain bikes, and backpack in the wilderness areas. The granite walls of LCC are world renown, and a top attraction among rock climbers.



Albion Basin Wildflowers

Albion Basin, in the upper reaches of LCC, provides a dramatic wildflower display all summer long, and is wildly popular for day use and camping. Recently reintroduced mountain goats cavort amidst the canyon cliffs to the delight of many visitors. An unpaved Forest Service road extends from Utah SR 210 in Alta, and provides summer access to Albion Basin for both residents and visitors. Special events, such as the wildflower festival and concerts attract summertime crowds that can rival peak wintertime visitation, greatly taxing this natural resource and related transportation facilities.

State highway routes, also designated as Scenic Byways, provide access to BCC (via SR 190) and to LCC (via SR 210). Both routes are paved, sinuous roadway spurs, with steep grades and no shoulders; and, frequently both are saturated with traffic during the peak ski season – often resulting in severe congestion and reduced mobility, locally known as the “Red Snake,” a condition named for the visual image created by the long line of vehicle taillights slowly “snaking” through the canyons. Such conditions also create safety concerns, especially when avalanche danger is high.

Guardman Pass Road (unpaved and closed in winter) extends eastward from Utah SR 190 in Brighton to Utah SR 224, providing seasonal access to Deer Valley and Park City east of the Tri-Canyons.

For nearly three decades, the Utah Transit Authority (UTA) has provided ski shuttle bus service in both BCC and LCC, and now also offers limited commuter service in LCC during the summer as well as expanded service during special events. The UTA ski shuttle bus fleet of 41 forty-passenger transit coaches is overtaxed on peak winter ski days, and particularly at end of the day. In addition to UTA, several commercial shuttle vans also provide service from Salt Lake City International Airport to the ski areas.



Traffic crossing Superior avalanche chute

MCC access is provided by a paved, sinuous, National Forest System (NFS) road. The road is not as steep as in the other two canyons; however it narrows in the upper canyon, making two-way traffic problematic. Access to MCC is controlled much of the time, and a \$2.25 per vehicle exit fee is collected by Salt Lake County Parks and Recreation. Net proceeds are used for MCC operations and maintenance activities. No scheduled transit service is provided into MCC.

All three canyons are popular among bicyclists for both road and trial riding; however, cycling is hazardous on the primary roadways due to the lack of adequate shoulders or bicycle lanes.

Watershed protection is a critical regional issue that effectively limits roadway expansion, and which must be considered under all transportation improvement scenarios and land use intensification proposals for BCC and LCC. MCC is not currently being used as part of the Salt Lake City's culinary water supply; but, the City does control the water rights in this canyon as well. Horses and dogs are not permitted anywhere or at any time in either BCC or LCC. In contrast, equestrian uses are permitted in MCC, and dogs are allowed on trails (odd days only) with cyclists permitted on even numbered days.

A Travel Management Plan is being prepared by the Salt Lake Ranger District. The travel management rule requires ranger districts to designate those roads, trails, and areas that are open to motor vehicle use (36 CFR 212.51) and publish a corresponding Motor Vehicle Use Map (MVUM).

Transportation Issues

Forest Service staff identified a wide range of issues for Alternative Transportation in Parks and Public Lands (ATPPL) Transportation Assistance Group (TAG) consideration: including existing road traffic safety, congestion and circulation, bus service, parking shortages, bicycle and pedestrian safety; as well as, the feasibility of providing bus shuttle service in MCC and alternative transportation to Albion Basin from Alta. Many transportation issues and challenges are common to all three of the canyons, including:

- High traffic and congestion
- Steep, narrow, dead-end roads
- Peak weekend use (Friday-Sunday)
- Growing bicycle use with no bike lanes
- No summer alternative transportation for visitors
- Avalanche threat and heavy snow removal challenges
- Road shoulder parking with associated safety, resource damage, visual quality issues

However, in addition there are site specific issues and those that vary in intensity from canyon to canyon. These are addressed in more detail below.

1. **Avalanches** pose a safety threat to all vehicular traffic, especially in LCC, resulting in several road closures each year. Other than shielding the road via snow sheds or relocating the roadway outside of the avalanche zone (a dubious possibility given that the road abuts a wilderness area and riparian habitat), minimizing risks to the public requires reducing traffic density when the hazard index is high; i.e., restricting road use to buses or metering traffic flow to avoid bumper to bumper flow at slow speeds. Real time traveler information, emergency response and incident management capabilities are also important considerations in these regards.

2. **Parking capacity** is capped within the Tri-Canyons, and overflow parking along roadways is common during peak season and special events. The WCNF Revised Forest Plan (2003) states that parking capacities will not exceed 2000 levels except for transit facilitation or watershed protection purposes. Parking at the ski resorts is free, generally uncontrolled and on a first-come first-served basis. Parking (formal and informal) both in and at the mouth of the canyons is often filled, and shuttle seats



from the park-n-ride are at a premium during demand peaks. Currently, real time (pre-trip or en-route) information about parking availability at park-n-rides and at canyon destinations is not available to travelers. However, outlying park-n-ride areas often have parking space available even at peak demand, and also offer a better chance to secure a seat on the shuttle into the canyons.

3. **Increased transit** use in the canyons is considered essential by the Forest Service and many other stakeholders. The WCNF Revised Forest Plan (2003) envisions increased transit usage as a means to reduce highway traffic congestion, and supports year-round transit service to both traditional and other popular destinations. UTA is supportive of exploring the potential for increasing transit use, including potential public/private partnerships; but, notes that the availability of suitable buses and trained drivers, in addition to operational and cost considerations, limit possibilities in the near term to making more effective use of the under-utilized park and ride facilities, express runs, and/or more demand responsive transit service to accommodate abrupt weather changes.

4. **Alternative transportation** options, beyond expansion of public transit services, do hold the potential to improve transportation in the Tri-Canyons. For example, improved bicycle access in BCC has been studied; and, the Town of Alta has experimented with voluntary van shuttle service from town to Albion Basin, in an attempt to reduce road traffic dust, to reduce overflow parking in undesignated areas, and to mitigate crowding that can degrade both the natural resource and the visitor experience. Bicycle and pedestrian safety along canyon roads also is of concern, as is trail access and transportation connections between canyons.

5. **Traveler information** both within and outside of the canyons is minimal and ripe for improvement. UDOT has received a Rural Intelligent Transportation Systems (ITS) grant to improve communications and travel information with respect to BCC and LCC. The grant is for improved signage and for disseminating travel information over the UDOT CommuterLink website, the “511” telephone line, highway advisory radio (HAR) network, and the avalanche hotline, as well as to provide transit information improvements and parking monitoring/management capabilities.
6. **Corridor management** and interpretive plans are being developed under a \$300,000 Scenic Byways initiative funded for BCC and LCC. This endeavor seeks to identify strategies and actions to inform travelers about interpretive features, as well as evaluate whether a National Scenic Byways designation is desired and warranted for these routes. Traveler directional signs to transit park-n-ride lots, year-round bus operations to trails and other recreation destinations in addition to ski areas, transit centers at resort areas, bicycle lanes and “bus-n-bike” capabilities are envisioned as possibilities. The MCC corridor is not included in this planning effort because as a Forest Service road it is not eligible to be designated a State Scenic Byway.

Analysis and Recommendations

Growth in regional population along the Wasatch Front is likely to continue. Recreational areas can accommodate additional usage, and corresponding development plans exist – recognizing that road, parking, and transit capacities in BCC and LCC are over subscribed during the peak ski season, at times during the summer and during the peak colors of fall. Alternative transportation is viewed as essential to accommodating current and future recreational activity given critical safety and watershed protection constraints. A spirit and culture of cooperation relative to transportation exists among agencies and stakeholders – both as a result of traditional cooperative winter road operations activities and planning efforts.

Tri-Canyons transportation issues are myriad and significant. Potential opportunities for seeking ATPPL funding for planning assistance abound. The recommendations herein focus on a small subset of possibilities in keeping with the limited availability of Forest Service staff and their partners to undertake initiatives beyond those already underway, such as the Scenic Byways and Rural ITS efforts, which necessitate involvement by key Forest Service staff. Nonetheless, the recommendations are fundamental and foundational.

Two transportation planning priorities are recommended below for consideration by the Forest Service and their partners/stakeholders. Both are consistent with the WCNF Revised Forest Plan (2003) intent that: “The Forest Service will work actively with other parties to explore options for reducing private vehicular use within these Canyons.” (p. 4-160). Recommended planning priorities:

- 1) Develop a strategic, long-range, Tri-Canyons transportation planning activity, based on cooperative, collaborative and continuing planning efforts, ultimately leading to the development of an overall visitor safety, access and recreational mobility

management strategy; fostering a basis for alternative transportation project initiatives for areas such as Albion Basin and MCC.

- 2) Exploration of near-term opportunities to enhance and/or improve the effectiveness of transit service and inter-modal connections to BCC and LCC.

Strategic Planning

A strategic, long range transportation vision for the Tri-Canyons would help coordinate and guide future planning and decision-making by the Forest Service and others. This is in accordance with Section 6001 of SAFETEA-LU, which amends Sections 134 and 135 of Title 23 and Section 5303 and others of Chapter 53 of the U.S. Code to require that the concerns of Indian tribal governments and Federal land management agencies that have jurisdiction over land within the boundaries of MPOs and States are considered as part of metropolitan and statewide transportation planning processes. Whereas broad program-level direction for management of the land and its resources is provided by the WCNF Forest Plan, it is not a suitable vehicle for establishing a strategic transportation vision in cooperation with the necessary stakeholders. A collaborative effort among the Forest Service and its partners will be key in determining the future of transportation in the Tri-Canyons. The future rests as much with those who provide transportation facilities and services (UDOT and UTA) as those who influence development (residents, forest users, land managers, ski areas, and local government jurisdictions, i.e., Salt Lake County and canyon towns, as well as the Salt Lake City Department of Public Utilities).

Recognizing that setting a shared strategic vision for the Tri-Canyons is inherently a lengthy, deliberative process, it is suggested that initial steps in this regard focus on building consensus on a “purpose and need” for development of a strategic plan. Prevailing transportation constraints (i.e., safety considerations, parking, road expansion and transit service limitations), coupled with anticipated development and increased recreational activity, suggest that transportation conditions will degrade further unless proactive steps are taken to plan, implement and manage visitor access and mobility options. Increased reliance on transit, integration of other alternative transportation systems and “seamless” inter-modal connections is assumed to be essential to any viable strategy going forward; however, the need for specific capabilities and services will depend on how many people are to be accommodated at various activities in respective parts of the forest, and within various timeframes.

Given the focus on BCC and LCC with respect to the Scenic Byways and Rural ITS initiatives, it is critical to begin documenting prevailing transportation conditions and problems, and how future growth would impact conditions in the Tri-Canyons under a “do nothing” or “status quo” transportation management scenario. MCC and Albion Basin in LLC are prime candidates for which Forest Service leadership and involvement is essential and would be instrumental in stimulating and facilitating potential alternative transportation options.

A primary planning objective should be to document the nature and extent of recreational uses, associated travel and transportation attributes and/or impediments. With respect to Albion Basin, for example, it is important to understand more about the visitors, the timing and duration of activities, special transportation needs (i.e., to accommodate

picnic, camping and photographic gear, etc.), and other factors that enhance or detract from the overall visitor experience (i.e., traffic noise, dust, degree of isolation, etc.), as well as the ability to serve various visitor segments (i.e., low income or the disabled) equitably.

Similarly, the nature and extent of visitor use in MCC should be explored and documented, so that alternative transportation opportunities can be identified relative to segments of visitation, along with those that are better served by private motor vehicle. A need exists to identify a suitable and sustainable level of visitor access to the Tri-Canyons and to develop a compatible mix of visitor uses, from which a corresponding comprehensive transportation vision, short- and long-term management strategies and facility development can be realized.

A corresponding need exists to document current transportation facilities and services, and associated system performance metrics and impacts both overall and with respect to specific visitor activities. In this regard it will be important to identify activities that are poorly served by prevailing transportation options, as well as identifying undesirable conditions that may exist such as conflicts between non-motorized and motorized transportation modes, unauthorized parking, noise, roadway and parking area runoff contaminants, and safety hazards. Similarly, it is desirable to inventory existing and prospective alternative transportation systems and facilities that might be advantageous going forward. These may include existing and prospective park-n-ride sites, ITS travel management, access control, traveler information facilities and commercial service providers (i.e., bicycle tour/rentals, specialized demand-responsive shuttle van service providers, etc.).

Data collection and survey research is an essential initial activity for the Tri-Canyons, if informed dialogue and discussion is to ensue. Opportunities may exist to engage designated University Transportation Centers (UTCs) or other proximate universities to assist in determining appropriate methods and in data collection. The U.S. DOT provides up to \$76.7 million per year to 60 UTCs throughout the United States (see <http://utc.dot.gov/listing1.html>), with a requirement that significant portions of the funding be matched by other sources. Each UTC is structured to address a specific theme; several of which relate to rural and/or alternative transportation topics of a nature similar to that of the Tri-Canyons area. Such partnerships might be used effectively to leverage agency funding requests so as to make any project proposal more competitive.

It is important that the strategic planning effort be consistent with current requirements of SAFETEA-LU requiring coordination of issues, the data and forecasts of regional and statewide transportation plans. Similarly, any strategic direction for the Tri-Canyons will need to dovetail with such plans and related processes, and be reflected in state transportation improvement plans (STIP) and programs as specific project initiatives are formulated. Given that most visitors to the Tri-Canyons travel from the greater Salt Lake metropolitan area, alternative transportation initiatives most likely will entail complementary improvements outside of the Tri-Canyons, on the part of state or local transportation agencies, as well as those within the canyons. Given the complex institutional context for transportation planning in the Tri-Canyons, no one organization has the necessary authority or span of control to set a strategic vision with any certainty. The strength of the vision will depend on “buy in” by all who have jurisdiction over

and/or a stake in improved transportation-related systems, facilities, and services that are sustainable, environmentally sound and promote wise land use decisions.

A fundamental purpose of the strategic planning initiative is to inform and educate the key stakeholders, including the public, regarding transportation trends and choices for the Tri-Canyons. It is critical that current institutional and public/private relationships be nurtured and that other partners and stakeholders are informed and consulted during the process as appropriate. Once sufficient data and information has been assembled, a “Tri-Canyons Transportation Summit” meeting should be considered to build consensus regarding the opportunity and need for new concepts and approaches, as well as the preferred path forward in both the short- and long-terms. The goal is to establish a unified strategic transportation vision, corresponding development and management strategies that can guide the policies, investments, and actions of concerned stakeholders in the best interest of the forest, its varied users and local residents alike.

As part of the strategic visioning process, “peer-to-peer” scanning tours may be useful as a means to acquaint decision-makers with current transportation problems and challenges related to the Tri-Canyons, exploring successful safety, congestion and travel management strategies that are in use at similar venues. Such tours also provide decision-makers an opportunity to learn about the actual advantages and consequences of various approaches from their peers.

Working in concert with the regional and statewide transportation planning processes will allow prospective improvements to be considered for state-administered transportation funding sources such as the Surface Transportation Program (STP), Congestion Mitigation/Air Quality (CMAQ) Improvement Program, Transportation Enhancement (TE) Program, and the FTA Formula Grants Programs for Urbanized and Non-Urbanized Areas, for example. These funds typically can be used in combination with ATPPL funds as well.

As noted previously, University Transportation Centers (<http://utc.dot.gov/listing1.html>) may present partnering opportunities with respect to needs assessment. There may also be opportunities for future planning and/or capital funding assistance under the SAFETEA-LU Section 1807 Non-motorized Transportation Pilot Program, which currently is limited to designated sites (see <http://www.fhwa.dot.gov/environment/bikeped/legtealu.htm>).

Transit Service Enhancement Planning

Given the WCNF Revised Forest Plan (2003) desired condition (p. 4-162) that: “Visitors to the Tri-Canyons area will make increasing use of mass transit to reduce congestion on the highways, and mass transit will expand to year-round operations,…” the need to initiate a concerted planning effort toward these ends appears paramount. Opportunities exist to explore more immediate transit service improvements while the strategic vision is being established. This is particularly true for BCC and LCC where limitations of existing transit services are evident, and less so regarding MCC and Albion Basin where the role of alternative transportation in accommodating forest visitation is not as well established.

The following possibilities are identified as an array of progressive planning efforts that may be pursued individually or sequentially as part of a more comprehensive initiative.

1) *Transit Needs Assessment*

Existing shuttle services have been developed and refined by UTA over the past three decades; however, there has not been a concerted effort recently to assess prospective transit needs, beyond the feedback provided to UTA by users, with respect to current transit offerings. Such feedback and UTA's experience with overcrowding at certain locations/times and with underused parking and shuttle capacity at certain locations/times, points to the possibility for operational improvements. In addition to identifying current user preferences, this effort should strive to understand how others might be motivated to use transit. For example, some suggest that express shuttle service directly to Alta might attract more riders, given that it would cut up to 20 minutes off of the one-way travel time by bypassing the three Snowbird stops. Likewise some suggest that additional service at peak times is essential to promoting transit use.

The suggested effort would comprise overall travel demand survey research and user satisfaction survey research, to bring into focus potential market segments for transit services. The study should integrate information from the Forest Service National Visitor Use Monitoring study results, statewide and regional transportation planning travel demand forecasts, ski area customer surveys, UTA shuttle user data, and feedback from canyon residents, visitors and resort area employees. Key objectives include identifying visitor travel patterns, trip characteristics, visitor experience/satisfaction with current transit options, and willingness to ride and/or pay based on prospective service improvements (i.e., reduced travel time, express service, real-time traveler information about adverse driving and parking conditions and bus arrival/departure time information, on-board refreshments and video (entertainment and/or interpretive services), motor coach service, improved park-n-ride/drop-n-ride and/or transportation transfer hub facilities, reserved/guaranteed shuttle seating, internal ski area circulator shuttle service improvements (including possibly gondola "people movers" between resort activity nodes), improved ride/bike service, preferential skiing privileges, or simply schedule/fare changes as examples).

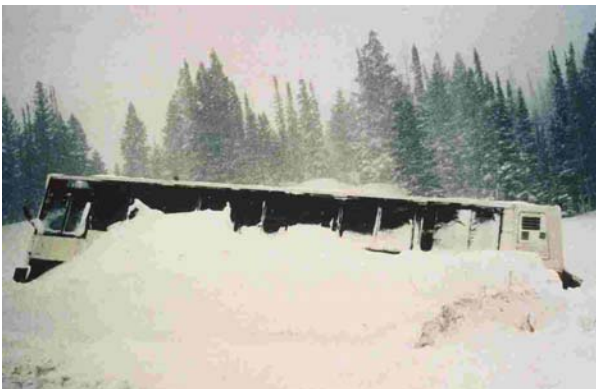
2) *Park-n-Ride / Transit Hubs*

Although park-n-ride facilities near the mouths of the Tri-Canyons overflow, others are under utilized. In part this may be due to a lack of advance information about parking availability at the mouths of the canyons, whereby travelers already having passed the available more remote park-n-ride options opt to continue to drive up the canyon. The UDOT Rural ITS Grant provides funding for this purpose. Providing a capability to monitor traffic flow in and out of the canyons in order to predict overall parking availability at internal destinations may be needed. However, to complement the ITS effort, traveler information needs and strategies, including an array of travel demand management (TDM) and Transportation Systems Management (TSM) possibilities (including congestion management / pricing strategies), that would promote greater park-n-ride use, should be studied as part of an effort to develop an overall transit marketing and operations improvement initiative, based on the new traveler information capabilities.

In the long term, however, it may be advantageous to have a major park-n-ride and/or transit hub (possibly with an interpretive/visitor contact function) near the mouths of three canyons. Such a facility would not only provide needed parking capacity, it would symbolize the need to increase and corresponding commitment to facilitate transit use and ridesharing for visitor access and mobility on the forest. A study to determine the desirability and feasibility of such a facility is recommended. Potential site locations should be considered based on the ability to provide sufficient capacity to meet future needs, as well as the availability of dedicated space for segregated bus operations and well organized drop-off/pick-up areas to preclude bus/automobile and bus/pedestrian conflicts that impede efficient bus operations at the shared lots. Concepts should be developed sufficiently to allow for preparation of preliminary costs estimates based on functional requirements and other considerations, such as a multi-story facility, possibly with transit oriented commercial development as part of a strategy to ensure high utilization year-round as well as to provide options for joint financing and public/private joint ventures.

3) *Transit System Improvement Opportunities and Constraints Assessment*

The existing UTA ski shuttle bus fleet is comprised of 41 buses, some of which are nearly two decades old. The ability to expand transit operations in the Tri-Canyons depends to a great extent on the ability of UTA, and possibly other transit entities, to provide additional buses and drivers, as well as supporting bus maintenance and service facilities at peak periods of demand . Operating a specialized, highly seasonal



Shuttle bus caught in avalanche

service poses numerous problems. Transit operations in mountainous terrain, particularly during winter avalanche season, require highly trained experienced drivers, and vehicles suited to the service. Beyond the scarcity of operations and maintenance funding, qualified bus drivers are potentially a limiting factor given the cost of retaining drivers through the off-season. Efforts to build off-season transit use would be helpful in this regard, but would

add to operating deficits given that prevailing fare revenue covers only a fraction of the cost of providing the service.

Fuel and propulsion technologies also impact the ability to expand transit operations to some canyon sites due to difficulties buses have in safety entering the traffic stream and “getting up to speed” on steep grades. Traffic congestion also represents a serious constraint on bus operations; in that, if buses are subjected to and impeded by traffic congestion as are private vehicles, there is little incentive to take transit. The feasibility of applying advanced traffic management and flow metering techniques should be explored as a means facilitating and/or expediting bus traffic in the canyons during peak periods. In this regard, access controlled bus and emergency vehicle bypass lanes at the entry to the canyons and at other critical points should be

considered, along with the associated need for traffic control enforcement capabilities.

An assessment of transit system improvement opportunities and constraints would be useful as a reality check for planning efforts going forward. Feasible concepts need to be realistic in terms of the availability and suitability of system components: including vehicles, drivers, passenger facilities (rest rooms, park-n-ride lots, bicycle storage racks, etc.), fueling and maintenance capabilities, as well as a sustainable financial structure.

In identifying limiting factors to expansion of existing transit services for the Tri-Canyons the study should also document opportunities for overcoming perceived funding constraints. For example, in addition to the ATPPL Program, it may be possible to secure funding under the FTA Job Access/Reverse Commute (JARC) Program and/or the FTA Section 5311 Rural Transit Program. Similarly, it may be possible to secure funding from the Federal Lands Highway Program (FLHP) through the Utah Forest Highway Program (If specific Tri-Canyon routes were designated as Forest Highways and other routes currently in the state system were removed, so there was a zero net gain in Utah Forest Highway Program miles.) or through the Public Lands Highway Discretionary Program, which is heavily earmarked. There also may be opportunities in the high-risk rural roads funding in HSIP – SAFETEA-LU Section 1101(a)(6), 1401; 23 USC, Section 148, or under the Strategic Highway Safety Plan that is to be prepared by the state prior to October 2007.

Summary of Recommendations:

- Establish an on-going, cooperative transportation planning activity focused on transportation issues confronting the Tri-Canyons area, starting with focused planning and analytic efforts in each of the three canyons; with the long-term goal of developing an overall visitor safety, access and mobility management strategy.
- One planning initiative should strive to enhance existing transit services for BCC and LCC, with a focus on identifying alternative transportation system improvements that could support increased visitation by a variety of recreational user groups, without a commensurate increase in vehicular traffic and roadway congestion.
- One planning initiative should consider visitor access and mobility in Albion Basin in other than the ski season, with an emphasis on identifying preferred levels and modes of visitation under both normal and special event situations.
- One planning initiative should focus on how a corridor management strategy that emphasizes alternative transportation could help preserve the special character, solitude, and user appeal of MCC while accommodating increasing levels of visitation.

The recommended planning activities could be packaged to create two project proposals for Alternative Transportation in Parks and Public Lands (ATPPL) funding:

- 1) A transit improvement proposal focused on enhancing and expanding service beyond that primarily serving skiers and ski resort employees; seeking to accommodate growth in recreational uses in corridors that already experiences severe safety and congestion issues under peak season traffic conditions.
- 2) An initial transportation study proposal focused on identifying planned recreational activity levels and the implications of a “do nothing” status quo transportation strategy under such conditions.

The level of effort for these recommended planning activities can vary greatly depending on the scope and complexity of proposed efforts. As points of reference, past ATPPL project proposals for transit improvement studies have ranged between \$100,000 and \$300,000, whereas the proposals for comprehensive strategic planning initiatives have ranged from \$200,000 to \$500,000, or more.

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NOTICE

The Transportation Assistance Group (TAG) is convened at the request of the recipient agency. The TAG is an agency-independent effort that is intended to provide technical assistance in support of the ATPPL program and does not imply, preference, or guarantee programmatic funding or project support. This document is disseminated in the interest of information exchange. The recommendations found therein reflect the collective expertise and consensus of the individual TAG members and does not in any way reflect the official opinion of any Federal agency. The United States Government assumes no liability for the contents of the document or use thereof.

Supporting Documents

1. “Transportation Planning Needs for the Tri-Canyons, Wasatch—Cache National Forest, Salt Lake Ranger District,” November 2006.
2. “Cottonwood Canyons Corridor Management Plan and Interpretive Plan,” Project Summary 2005, FHWA National Scenic Byways Program.
3. “Little Cottonwood Canyon: SR210 Transportation Study” prepared for the Utah Department of Transportation, Alta Ski Area, Snowbird Ski and Summer Resort, Utah Transit Authority, and the Town of Alta by Fehr & Peers Associates, August 2006.
4. “ITS – Rural Recreation and Tourism,” a grant application submitted by the Utah Department of Transportation on July 15, 2005, to the ITS Integration Component of the ITS Deployment Program of the U.S. Department of Transportation.
5. “A Bicycle Route Feasibility Study for Big Cottonwood Canyon, SR190 (Revised 11/10/2005),” prepared for UDOT Connecting Communities by University of Utah CVEEN 4910 Class students (a.k.a. Crimson Engineering).
6. “Salt Lake City Watershed Management Programs: 1847-1997,” LeRoy W. Hooton, Jr.
7. “Salt Lake City Tri-Canyons,” briefing to TAG by Wasatch-Cache National Forest, Salt Lake Ranger District, November 6, 2006
