

# TRAVEL DEMAND MANAGEMENT

## TOLLING AND VEHICLE OCCUPANCY RESTRICTIONS

The purpose of the toll or ban on single occupancy vehicles would be to incentivize transit use and reduce the use of personal vehicles going to the ski resorts during the winter by 30%. UDOT evaluated measures that would encourage visitors to use any of the transit alternatives (buses, gondola, cog rail) instead of driving personal vehicles. Tolling or vehicle occupancy restrictions would be implemented with any of the alternatives. Tolling and vehicle occupancy restrictions would only be implemented during the winter on peak use days when congestion levels are high.

### TOLLING FEES & CONSIDERATIONS

With improved transit options (bus, gondola or cog rail), tolls during the ski season would make users of personal vehicles consider whether transit is a better option.

The exact amount of the toll has yet to be determined, but the toll could range from \$20 to \$30 for most vehicles during peak-periods, with possible variations based on the time of day and the day of the week.

Tolling would be focused on the area of S.R. 210 around the ski resorts (starting above Snowbird Entry 1) that would be served by the proposed transit with the action alternatives. Potentially, residents of Little Cottonwood Canyon, drivers of service vehicles and resort employees could be exempt from paying the toll.



Tolling Analysis > Design > Construction

### TOLLING IMPACTS TO LOW INCOME POPULATIONS

UDOT did consider low-income populations in how a toll would be implemented. Practicable measures to avoid or reduce the potential adverse effects would include:

- Subsidized transit service similar to the existing bus service with a reduced cost for use.
- Place the toll gantry above White Pine trailhead and below Snowbird Entry 1. This would allow all users wanting to recreate outside the ski resorts in the lower portions of Little Cottonwood Canyon to avoid having to pay the toll.
- Have the toll in effect only during the morning peak-period (7 a.m. to 10 a.m.), which would allow low-income populations to avoid paying the toll in the upper canyon by recreating after 10 a.m.

### TOLLING IMPACTS TO BIG COTTONWOOD CANYON

A potential indirect effect of a toll or a ban on single-occupant vehicles on S.R. 210 could be that skiers would visit other ski resorts that are accessed via roads without restrictions. The main traffic impact would be to S.R. 190 in Big Cottonwood Canyon, which provides access to two ski resorts (Solitude and Brighton). If skiers use S.R. 190 to avoid a toll or a ban on single-occupant vehicles on S.R. 210, this could increase congestion levels on S.R. 190, causing delays to reach the ski resorts and traffic backups on Fort Union Boulevard and Wasatch Boulevard near the entrance to Big Cottonwood Canyon.

To mitigate the potential for indirect effects in the form of increased congestion on S.R. 190, UDOT would likely implement a toll or a ban on single-occupant vehicles on this road as well, so both S.R. 190 and S.R. 210 would have similar congestion-management policies. If a toll were implemented for S.R. 190, transit service would need to be improved in that canyon for those not willing to pay a toll or for single occupant vehicles. The tolling gantry would likely be placed immediately below Solitude Entry 1, to focus the toll on the main, peak-hour winter canyon user, skiers. If a decision is made to toll Big Cottonwood Canyon, a separate environmental analysis would be conducted if necessary.

## POTENTIAL TOLLING REVENUE USAGE

The tolling revenue generated would be used to pay for the operation of the tolling system and potentially the operation and maintenance costs of the transit system to reduce fares. Any tolling would need to follow applicable Federal Highway Administration and State of Utah requirements. Tolling revenue generated from a toll on a state highway must be deposited into the Tollway Special Revenue Fund and used for acquiring right-of-way and designing, constructing, reconstructing, operating, maintaining and enforcing state transportation systems and facilities, including making operating improvements to the tollway and other facilities used exclusively for the operation of a tollway facility.

## VEHICLE OCCUPANCY RESTRICTIONS

Another form of travel demand management would be to exclude certain vehicles from entering Little Cottonwood Canyon based on vehicle occupancy, requiring those users to take transit. With this implementation strategy, during peak-periods, single-occupant vehicles would not be allowed in the canyon in peak congestion periods from 7 a.m. to 10 a.m.

- Occupancy readers or other enforcement strategies could be implemented to determine the number of vehicle occupants; this technology is emerging.
- Violators would be fined for violating the occupancy requirements.
- To avoid riding in a single-occupant vehicle, some single occupants might carpool, which would improve traffic conditions by reducing the number of vehicles in the canyon.
- Bicyclists and motorcyclists would be exempt from the occupancy restriction and, like tolling, residents might be exempt.

## ENFORCEMENT TECHNOLOGY

Tolling implementation would require technology solutions to support enforcement, as a toll booth at the entrance to the canyon would cause significant queuing and delay. A dynamic tolling system (variable fees based on levels of congestion) would need to be utilized.

UDOT has not identified a specific tolling technology. It could be a cell phone-based system, an Express Pass transponder-type system and/or a license plate reader. To minimize visual impacts, UDOT would coordinate with the U.S. Department of Agriculture (USDA) Forest Service regarding the aesthetics.

Technology	Vehicle Requirement
Dedicated Short-Range Communication (DSRC) (e.g., Express Pass)	On-board transponder unit
License Plate Recognition (LPR)	License plate
Radio Frequency Identification (RFID)	RFID tag
Smartphone App	Phone
Vehicle Occupancy Detection	None