

LONG-TERM STRATEGIES

If near- and mid-term strategies do not adequately reduce the duration of peak winter weekend congestion on US 180, the following potential long-term strategies could be implemented.

Description	Examples	Information
Alternate Route to I-40		
New capacity could be added to the US 180 corridor by improving an existing forest road that would provide a connection to I-40.	<ul style="list-style-type: none"> • Forest Road 581 • A-1 Mountain Road 	<ul style="list-style-type: none"> • The cost of constructing a two-lane paved road with 8-foot shoulders is estimated at \$2 million per mile. • Additional capacity would significantly reduce the duration of peak winter weekend traffic congestion. • Impacts to the forest and neighborhoods would have to be mitigated or avoided.
Cable Propelled Transit		
Some ski resorts and urban centers use a high-speed gondola or an aerial tramway as part of their winter resort transportation system.	<ul style="list-style-type: none"> • Portland Aerial Tram - traverses 3,300 feet and carries an estimated 3,700 one-way trips each day. • Telluride and Mountain Village in Colorado are linked by a 13-minute high-speed gondola. 	<ul style="list-style-type: none"> • High cost strategy that would require more detailed study to explore its cost effectiveness. • Costs are dependent on numerous factors such as technology, terrain, and length of system. • Any new cable propelled transit corridor would have to navigate the environmentally and culturally sensitive Kachina Peaks Wilderness Area.
Intersection Improvements		
Improvements to key intersections could improve safety and reduce travel time.	<ul style="list-style-type: none"> • Installing a modern roundabout at the US 180/Snowbowl Road intersection. 	<ul style="list-style-type: none"> • Intersection improvements are estimated to cost \$2 to 3 million (does not include utility relocation, drainage, etc.). • A more detailed study is needed to identify what type of intersection improvement is needed and its impact on corridor travel times.
Widen US 180		
In the past, ADOT and the City of Flagstaff have evaluated widening US 180. If widened, ADOT recommends a three-lane road with one travel lane in each direction and a center two-way left turn lane.	<ul style="list-style-type: none"> • Widening US 180 from Snowbowl Road to Milton Road. • The center lane could be managed as a travel lane during peak period. • Transit buses could use a widened shoulder. 	<ul style="list-style-type: none"> • Portions of US 180 already exist as three lanes. • The cost of adding an additional travel lane on the remaining four miles is estimated at \$5 to 6 million (does not include utility relocation, drainage, etc.).



US 180 WINTER TRAFFIC STUDY

Public Meeting | November 16, 2011

STUDY OVERVIEW

Flagstaff enjoys a tourism boost after abundant snowfalls, attracting visitors eager to ski, sled, and play outdoors. Unfortunately, these visitors also cause extreme winter traffic congestion along US 180, the primary route to ski and snow play areas.

In response to the frustration felt by the local community (including neighborhood groups, emergency responders, and area businesses) the Flagstaff Metropolitan Planning Organization (FMPO) is conducting a study to identify and evaluate strategies to Flagstaff's winter congestion challenges. The study will recommend potential near-, mid-, and long-term strategies to ease the peak weekend winter traffic congestion.

STUDY PROCESS

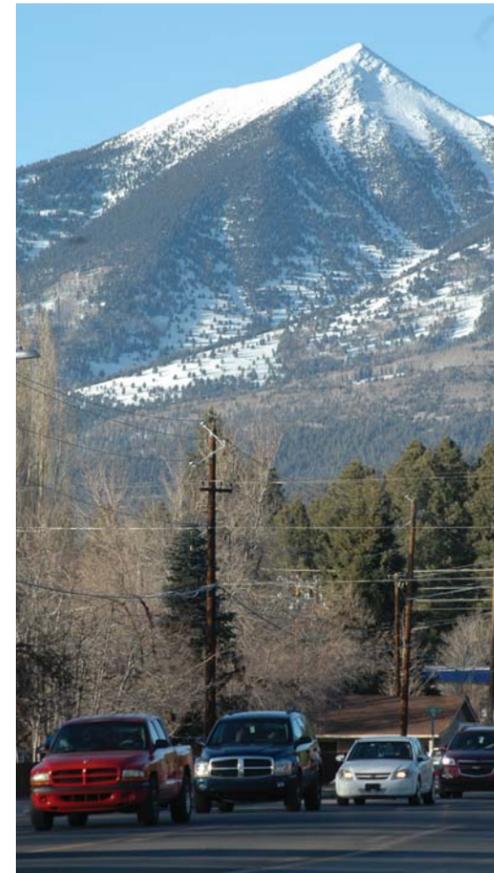
Starting on August 16, 2011, the public was invited to identify issues with Flagstaff's winter traffic congestion and to submit ideas on how to improve the winter traffic. The following four predetermined topics were posted on an online forum called MindMixer for discussion and comment:

- Community Impacts
- Traffic Solutions
- Economic Development
- Winter Recreation Experience

A public information meeting was also held on September 13, 2011 to gather additional input on the same four topics.

After studying the existing and future conditions of the study area and taking into consideration the input provided by the public, FMPO Technical Advisory Committee, and Flagstaff's Winter Recreation Task Force, the study team drafted twelve (12) potential strategies for easing winter traffic congestion along US 180. These potential strategies were posted on MindMixer from October 14-28 and are presented here tonight for prioritization and comment.

Please note that all strategies identified in the study and implemented would be subject to agency rules, funding availability, and environmental concerns.



ABOUT TONIGHT'S MEETING

- Please review the exhibits around the room.
- A presentation will be provided at 5:45 p.m. followed by a question and answer session.
- Your input is important. Be sure to complete a comment form. You may leave it with us tonight or **submit your comments by November 30, 2011.**

For additional project information or to submit comments, please contact:



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Description	Examples	Information
Early Departure Incentives		
Encourages visitors to leave winter recreation sites early and avoid the peak afternoon travel	<ul style="list-style-type: none"> Distributing coupons at winter recreation sites for local restaurants offering discounted meals for those who leave early. Offering morning half-day ski passes to encourage early departure. 	<ul style="list-style-type: none"> Low cost strategy
Traffic Signal Timing		
Allocates green time to each signal phase based on traffic volumes.	<ul style="list-style-type: none"> Adding additional green signal time on southbound Milton Road at Butler Avenue and Route 66. 	<ul style="list-style-type: none"> Low cost strategy
Traffic Signing Plan		
Includes an improved system of guide signs on US 180 and at winter recreation sites that would encourage visitors to use alternate routes from US 180 to I-40 and I-17.	<ul style="list-style-type: none"> Posting signs at Snowbowl and Wing Mountain exits encouraging visitors to avoid Milton Road. Placing advance “flagger ahead” warning signs on US 180 to increase safety at the Snowbowl Road/US 180 intersection 	<ul style="list-style-type: none"> Each sign could cost up to \$3,000 per installation depending on size. Could be implemented by the public and private sector.
Traveler Information System		
Provides estimates of travel time to and from winter recreation sites to shift travel demand from the afternoon peak times to less congested times.	<ul style="list-style-type: none"> Locating signs at winter recreation sites that display travel time estimates based on departure time. AM 1610 radio broadcasts. Sending traffic updates to smart phones. 	<ul style="list-style-type: none"> Low cost strategy

Strategy Examples

NEAR-TERM



Traveler Information System

MID-TERM



Transit

LONG-TERM



Roundabout

Description	Examples	Information
Dispersed Snow Play Sites		
Encourages future sites to be located elsewhere in the region and not along US 180.	<ul style="list-style-type: none"> City of Flagstaff site at McMillian Mesa Improving Fort Tuthill County Park 	<ul style="list-style-type: none"> Strategy may require additional infrastructure and would cost more to implement than a winter recreation parking pass or managed lane. The Forest Service generally requires a concessionaire willing to operate a site under a special use permit.
Managed Lane		
Controls traffic movement by limiting lane use and left turns during peak periods of traffic, or by designating lanes as either carpool or bus only.	<ul style="list-style-type: none"> City of Phoenix uses managed lanes on 7th Street and 7th Avenue. During peak periods, the center two-way left turn lane is converted to a travel lane. 	<ul style="list-style-type: none"> A temporary eastbound managed lane on Humphreys Street between Cherry Street and Route 66 is estimated at \$300 to \$500 per day to implement.
Transit		
Public and/or private shuttles could provide an alternative mode for travelers.	<ul style="list-style-type: none"> A public starter route between NAU and Snowbowl could run on weekends every 30 minutes during peak periods and every 60 minutes during off-peak periods. It may serve 520 riders each day reducing vehicle trips to Snowbowl by up to 200. A starter transit service to Snowbowl would have only a small impact on peak winter weekend travel times. 	<ul style="list-style-type: none"> A starter transit service seasonal operating cost based on 16 weekends of operation is \$133,000. Winter recreation sites could incentivize transit ridership by requiring guests to use shuttles or buses for access.
US 180 Winter Recreation Parking Pass		
Could be required during winter months to park along US 180.	<ul style="list-style-type: none"> Red Rock Pass program in Sedona. “Sno-Park” permit program in Oregon. 	<ul style="list-style-type: none"> Low cost strategy Revenue from passes could be used to implement other enhancements. May reduce casual snow play activity and related congestion.

Strategy Example

MID-TERM

Dispersed Snow Play Sites

