CHAPTER 3: GOALS, POLICIES, & PERFORMANCE MEASURES

The goals, policies, actions, and performance measures in the Active Transportation Plan provide specific direction on how TRPA/TMPO and partnering agencies, organizations, and private entities can work together to improve the active transportation network and increase use. The policy framework reflects and provides solutions to current opportunities and challenges. Implementation actions associated with the policies below are located in Chapter 6: Implementation Plan, Section 6.1 "Actions."

3.1 GOALS

The goals provided below expand on the more general transportation goals set forth in the Bi-State Compact, the TRPA/TMPO Regional Plan, and the Regional Transportation Plan, *Mobility 2035*.

- Increase connectivity by completing the active transportation network.
- Improve safety for bicyclists and pedestrians.
- Increase and support consistent project implementation through technical assistance and funding.
- Increase encouragement and awareness through implementation of the "5 E's."

Kingsbury Grade. Photo: Tom Lotshaw

3.2 POLICIES

Policies provide direction for partners on how to meet goals. The policies often outline critical activities in which partners are already engaged as part of their day-to-day work. Once the TRPA/TMPO approves the Active Transportation Plan, the policies in this section will become part of the Regional Plan and will be implemented through the Code of Ordinances, the transportation department's overall work plan, and through agreements with partnering organizations. Policies, and associated actions are captured in matrices within each section. Many policies are fulfilled by multiple actions, and in some cases new specific actions were not identified as needed to fulfill each policy because they are already a part of daily activities.

SECTION 1: NETWORK DESIGN

1.1 Accommodate the needs of all travelers by designing and operating roads to provide for safe, comfortable, and efficient travel for roadway users of all ages and abilities, such as pedestrians, bicyclists, transit riders, motorists, commercial vehicles, and emergency vehicles.

1.2 Continue public/private collaboration in developing, funding, and implementing a complete Class I/shared-use path network around Lake Tahoe.

1.3 Design "low stress[1]" facilities to close gaps in the active transportation network by connecting facility types, removing barriers, and creating equitable infrastructure for all roadway users.

1.4 Through location-specific, flexible, and context-sensitive approaches, collaborate with agency stakeholders and community members to determine design solutions that meet requirements and incorporate best practices based on international, national, and state standards for active transportation.

1.5 Balance the needs of all roadway users when considering intersection improvements and impacts to level of service. Encourage implementing agencies to evaluate project design alternatives through methods other than and/or in addition to vehicular Level of Service (LOS) such as reduction in vehicle miles traveled (VMT), number of increased active transportation trips, Multi-Modal Level of Service (MMLOS) and Level of Traffic Stress (LTS).

1.6 Utilize design flexibility and pursue "experimental status" when adherence to published standards is not feasible or where different standards would provide safety, economic, environmental, social, or connectivity benefits.

1.7 Construct, upgrade, and maintain active transportation facilities along major travel routes as part of all roadway improvements. In constrained locations, all design options should be considered such as restriping, signalization, and narrowing travel lanes.

1.8 Support and encourage local jurisdictions and school districts in removing barriers to active transportation planning, facility design, and implementing projects and programs.

1.9 Incorporate applicable Best Management Practices (BMPs) into facility and maintenance design to support environmental and financial sustainability.

[1] A "low stress facility" is infrastructure that attracts less-experienced users who may have fear of using active transportation as a method of travel.

Section 1: Network Design Policy Action Matrix

Policy Number	State	Regional	Local	Private	Community	Actions
1.1	X	X	X	X	X	1.B
1.2	X	X	X	X	X	1.A
1.3	X		X	X		1.B
1.4	X	X	X	X		1.B
1.5	X	X	X			1.B
1.6	X		X			1.B
1.7	X		X			1.C
1.8	X	X	X		X	1.D
1.9	X	X	X			

SECTION 2: FACILITY MAINTENANCE

2.1 Every effort should be made to maintain the year-round use and condition of active transportation facilities, including making sure connections are not blocked during snow removal or are quickly made available through clearing. This also includes maintaining and upgrading infiltration devices, clearing snow, sweeping, and re-striping where needed during the season and before major cycling events. State agencies should provide timely highway maintenance in the spring of each year.

2.2 Prior to permit issuance, all projects containing active transportation facilities are required to submit a Maintenance Responsibilities Chart and Plan. These plans will clarify roles for annual and capital infrastructure operating and maintenance and identify funding needs and possible sources. This information will be included in approved permits. See Appendix F, for *Maintenance Responsibilities Chart and Plan Template*.

2.3 Encourage local jurisdictions to plan long-term operations and maintenance activities for existing and future facilities by requesting use of available Air Quality Mitigation Funds.

Section 2: Facility Maintenance Policy Action Matrix:

Policy Number	State	Regional	Local	Private	Community	Actions
2.1	X		X			2.A
2.2	X	X	X	X		2.B
2.3		X	X			2.C

SECTION 3: MULTI-MODAL CONNECTIONS

3.1. Create convenient intermodal connectivity which considers first and last mile facility needs and connects all modal options by providing necessary infrastructure, and schedule coordination.

3.2. Encourage local jurisdictions to work with public and private entities to analyze the amount of space devoted to motor vehicle parking and bicycle parking on existing and planned projects to ensure that space is allocated appropriately for all vehicle types.

3.3. Maximize bicycle carrying capacity on all transit vehicles, prioritizing high-use multi-modal routes, reflecting current state policy, and using best available technology.

3.4. Encourage jurisdictions and other maintenance agencies to identify opportunities for efficient and innovative parking strategies that reallocate roadway space to provide for the active transportation network.

Section 3: Multi-Modal Connections Policy Action Matrix:

Policy Number	State	Regional	Local	Private	Community	Actions
3.1		X	X	X	X	3.A
3.2		X	X	X		3.A
3.3		X	X			3.B
3.4	X	X	X			3.A

SECTION 4: PROJECT IMPLEMENTATION

4.1 Support agencies Region-wide in adopting complete street policies and resolutions.

4.2 Actively pursue funding for priority projects, programs, and maintenance in collaboration with partnering agencies, private entities, and community groups.

4.3 If construction impacts an active transportation route, projects must adhere to the appropriate MUTCD which requires the implementing agency to provide alternate routes and safe accommodations for all modes.

4.4 Incorporate segments of the proposed active transportation network into new and redeveloped commercial, tourist, multi-family, public service, and recreation projects consistent with this plan. Implementation of the facilities will be conducted through construction, easements, or in-lieu fees as appropriate to the scale of development per the TRPA Code of Ordinances, section 65.3.2.

4.5 During project planning and permit approval, identify and address the need for support and end-of-trip active transportation facilities including bicycle parking, water fountains, benches, and restrooms at commercial, tourist, recreational, transit, lodging, and government centers.

4.6 Consider additional facilities where connections to the existing network or end-of-trip facilities are needed and adopt into the plan as appropriate.

4.7 Projects should go forward regardless of where they are on the priority list when an opportunity or eminent loss of an opportunity makes implementation favorable or necessary.

Section 4: Project Implementation Policy Action Matrix:

Policy Number	State	Regional	Local	Private	Community	Actions
4.1		X	X			4.A
4.2		X	X		X	4.E
4.3	X		X			
4.4		X	X	X		4.B, 4.F
4.5		X	X	X		4.C
4.6		X	X		X	4.D
4.7		X	X		X	

SECTION 5: EDUCATION, ENCOURAGEMENT, EVALUATION, AND ENFORCEMENT PROGRAMMING

5.1 In collaboration with law enforcement, school districts, and community groups, educate roadway users about their legal rights and responsibilities through education and encouragement programming.

5.2 Through public/private partnerships, continue to prioritize and implement consistent Region-wide wayfinding and path etiquette strategies.

5.3 Evaluate active transportation trends and project effectiveness through bi-annual implementation of the Lake Tahoe Bike & Pedestrian Monitoring Protocol in partnership with local and state jurisdictions.

5.4 Annually evaluate implementation of active transportation goals and policies and report on benchmarks.

5.5 Update the Active Transportation Plan every four years to identify new facility improvements and programmatic opportunities.

5.6 As new mobility technologies emerge, partnering agencies should analyze data and determine if regulation or new design considerations are necessary to accommodate all users and continue to support increased mode share.

5.7 Encourage all state and local law enforcement agencies to develop and implement an enforcement program that reduces behaviors that act as barriers to safe active transportation, including parking restrictions, wrong-way bicycle travel, distracted driving, drunk driving, 3-foot laws, and other known crash-inducing behaviors.

5.8 All active transportation projects and improvements should consider including permanent monitoring and detection infrastructure such as inductive loops, passive infrared, and signal detection systems.

Section 5: Education, Encouragement, Evaluation, and Enforcement Programming Policy Action Matrix:

Policy Number	State	Regional	Local	Private	Community	Actions
5.1		X	X		X	5.A
5.2		X	X	X	X	5.B
5.3		X	X		X	5.C
5.4		X				5.D
5.5		X				
5.6	X	X	X		X	4.E
5.7	X		X			5.E
5.8	X		X			5.C

3.3 PERFORMANCE MEASURES

Setting performance measures for plans, projects, and programs is crucial when determining where funding, infrastructure improvements and other resources should be directed. The TRPA/TMPO Research and Analysis Department, in coordination with other TRPA/TMPO departments and agencies throughout the Region, manage robust monitoring efforts that track progress. Active transportation performance measures are aligned with appropriate TRPA/TMPO Environmental Improvement Program (EIP) and Regional Plan targets and thresholds as well as broader targets set by the federal and state governments. A variety of online tools exist to help illustrate progress, including the EIP Project Tracker (www.conservationclearly.org/tracker) and the Sustainability Dashboard (http://www.ltinfo.org/).

2010 Performance Measure Evaluation

By monitoring effectiveness, agencies can be adaptive and flexible, ensuring progress. The 2010 Bike and Pedestrian Plan defined five benchmarks. The 2010 benchmarks are listed below, with analysis measuring regional progress over the last five years. This plan replaces the 2010 benchmarks with new performance measures that conform with the 2012 Regional Plan, follow national best practices, and utilize the most accurate and consistent data available. The analysis of some of the 2010 benchmarks reflect the impacts of a declining population, and data that may contain some accuracy limitations because of the way it is collected and distributed.

Benchmark 1: Double the percentage of commuters who bicycle or walk to work from 3.8 percent of all employed residents to 7.6 percent of all employed residents per U.S. Census data by 2023.

Analysis 1: The number of employed commuters who walk or bicycle to work decreased by 0.05 percent. The 2000 census estimates 3.8 percent whereas the 2010 census estimates 3.3 percent.

Benchmark 2: Increase the percentage of residents and visitors who bicycle and walk to commercial and recreation destinations from 16 to 25 percent in the summer, and from 13 to 20 percent in the winter, by 2023. By 2030, increase to 30 percent in the summer and 25 percent in the winter.

Analysis 2: The percentage of residents and visitors who walked or biked to commercial or recreation destinations decreased by 1 percent between 2010 and 2014 in the summer, and increased by 1 percent between 2008 and 2012 in the winter.

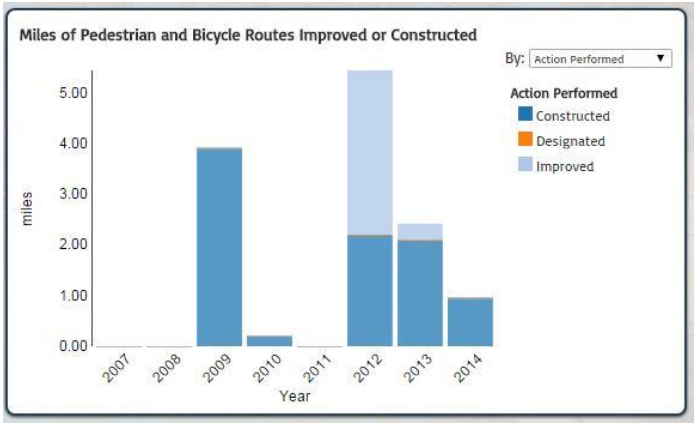


Figure 3-1: Miles of Network Constructed, 2010 -2014. Source: EIP Tracking Tool

Benchmark 3: Implement 20 percent (approximately 45 miles) of all recommended facility improvements within five years (by 2015).

Benchmark 4: Implement 40 percent (approximately 90 miles) of all recommended facility improvements within 10 years (by 2020).

Analysis 3 & 4: Since 2010, 37 miles of facilities have been implemented, 18 percent of the total recommended facility improvements. In total, 120 miles of facilities exist region-wide.

Benchmark 5: Decrease the bicycle and pedestrian accident rate.

Analysis 5: The 2010 plan explains that to analyze this benchmark, a comparison of the rate of pedestrian- and bicycle-related collisions in relation to overall collisions within the Region should be made. In 2010, the overall rate of active transportation collisions in comparison to overall collisions was estimated at 10 percent. This number is derived by dividing the total number of active transportation collisions between 2004 and 2008 in Placer County and El Dorado County (139) by the total collisions on the California side of the Region over the same period of time (1,373).[2] The current rate is estimated at 7 percent. This rate is derived by dividing the total number of active transportation collisions on the California side of the Region between 2010 and 2014 (93) divided by the total California side collisions over the same period of time (1,305). Nevada data is not included in this estimate because overall vehicle collisions for the 2004-2008 time period were not available previously.

2015 Performance Measures

To align transportation performance measures across the many planning efforts conducted region-wide, this plan is adopting the 2012 Regional Plan performance measures related to transportation and new performance measures that are anticipated to be part of the 2016 Regional Transportation Plan. These measures and a brief analysis are listed below. Baselines and methods are provided and should be used for comparison during the next Active Transportation Plan update, which is planned for 2020.

The measures listed below are not the only way the effectiveness of the plan will be monitored. The goals and policies put forth in this plan are accompanied by implementation actions in Chapter 6, Section 6.1. The actions contain benchmarks that provide timelines for estimated implementation. The annual Active Transportation Plan Implementation Report, included in the TRPA Annual Report will address progress of the performance measures below as well as the implementation actions associated with policies.

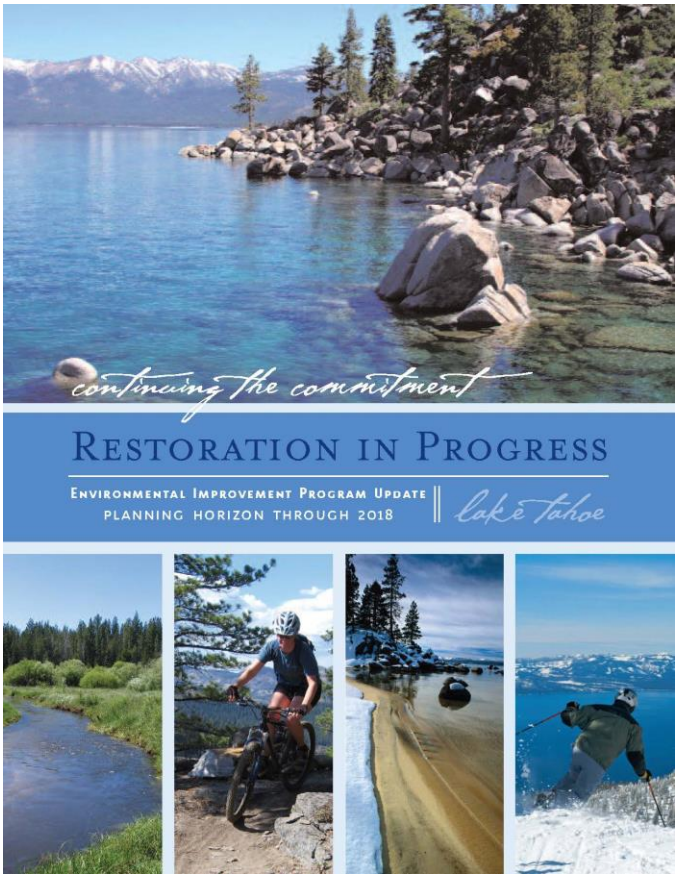
[2] This number differs slightly from what was reported in the 2010 plan because the estimate has been updated with best available data.

Performance Measure 1 (RP #5): *Increase percentage of all trips using non-automobile modes of travel (transit, bicycle, pedestrian).*

Analysis: Non-auto mode share at Lake Tahoe is measured by intercept surveys at commercial and recreation sites in winter and summer. Using a detailed, longstanding monitoring protocol to collect this data, non-auto mode share is reported every two years in the TMPO's *Transportation Monitoring Program Report*. The two-year cycle alternates updates to summer and winter mode share which are individually calculated every four years. The current baseline for non-auto mode share is 19.07 percent. TRPA/TMPO set an increase target of 0.25 percent by 2016. The 2012 Regional Transportation Plan suggests non-auto mode share should increase 3 to 5 percent to meet greenhouse gas reduction targets. An evaluation of this performance measure will be made in 2016.

Performance Measure 2 (RP #6): *Decrease automobile vehicle miles traveled (VMT) per capita (excluding through-trips).*

Analysis: The Regional Transportation Plan's main strategy to reduce greenhouse gas emissions is to reduce VMT by increasing access to active transportation facilities and multi-modal connections. Thus, a reduction in VMT should directly reflect an increase in active transportation access and use. TRPA/TMPO set a decrease target of 1 percent by 2016. An evaluation of this performance measure will be made in 2016.



Performance Measure 3 (RP #7): *Accelerate pedestrian and bicycle improvements.*

Analysis: The 2012 Regional Plan set a target of 4.5 miles of improvements per year. This benchmark has been met as of 2014, with an average of 6 miles per year. The level 2 target seeks to increase the construction average to 9 miles per year by 2020.

Performance Measure 4 (RTP 2016 Performance Measure): *Decrease serious injuries per vehicle mile traveled for bikes and pedestrians.*

Analysis: In 2016, the Regional Transportation Plan will incorporate new performance measures that are consistent with measures used by other California and Nevada MPOs. New performance measures related to safety include serious injuries and fatalities (also see Performance Measure 5) for bikes and pedestrians per vehicle mile traveled. In 2014 there was only one reported serious injury for bicyclists and pedestrians in the Tahoe Region, therefore, with a VMT estimate for 2014 of 1,974,000[3], this metric is effectively zero. As noted in other places in this document, reporting of bicycle and pedestrian collisions is not always accurate. This measure is reported for 2014 only for consistency with the RTP.

Performance Measure 5 (RTP 2016 Performance Measure): *Decrease fatalities per vehicle mile traveled for bikes and pedestrians.*

Analysis: In 2014 there were no reported fatalities for bicyclists or pedestrians in the Tahoe Region, therefore, this metric is zero. As noted in other places in the document, reporting of bicycle and pedestrian collisions is not always accurate. This measure is reported for 2014 only for consistency with the RTP.

Taylor Creek. Photo: Mike Vollmer

[3] This number is rounded and is the estimate for 2014 available by November 30, 2015. This number may be updated in future documents, such as the 2016 Regional Transportation Plan.

3.4 NOTABLE ACCOMPLISHMENTS

Since 2010, many active transportation projects all over the Region have broken ground and are providing commuting and recreational opportunities. Funding, implementation, and ongoing maintenance of these projects are the joint effort of many agency partnerships.

Snow Creek Restoration Project. Photo: Tom Lotshaw

Shared-Use Paths: In total, **6.5 miles** of path have been constructed since 2010.

- Meyers Bikeway: *El Dorado County, City of South Lake Tahoe, and U.S. Forest Service*
- Lakeside Trail: *Tahoe City Public Utility District*
- Nevada Stateline to Stateline Bikeway: *TTD, U.S. Forest Service, Douglas County, NDOT*
- Snow Creek Restoration Project: *Placer County*
- South Tahoe Greenway, Phase 1: *California Tahoe Conservancy*

Bike Lanes: In total, over **22 miles** of bike lanes have been added since 2010.

- US Highway 50: *Caltrans and City of South Lake Tahoe*
- State Route 28, Tahoe City "Wye" to Kings Beach: *Caltrans and Placer County*
- Apache Avenue: *El Dorado County*
- Lake Tahoe Boulevard: *El Dorado County*
- Lake Parkway: *Douglas County*

Sidewalks: In total, over **7.5 miles** of sidewalk have been constructed since 2010.

- Pioneer Trail: *City of South Lake Tahoe*
- Lake Parkway: *Douglas County*
- Incline & Oriole Way: *Washoe County and Incline Village General Improvement District*
- US Highway 50: *Caltrans and City of South Lake Tahoe*
- Kings Beach: *Placer County and Caltrans*

Enhanced Crosswalks: In 2014 and 2015, the Region saw three new pedestrian-activated beacons installed in El Dorado County, and in Incline Village by Nevada Department of Transportation. More are planned for Camp Richardson in South Lake Tahoe and Tahoe City.

- Sawmill Pond and Lake Tahoe Boulevard Intersection: *El Dorado County*
- Two (2) mid-block crossings along State Route 28 between Country Club and Village Boulevard: *Nevada Department of Transportation*

Roundabouts: Nevada Department of Transportation, Caltrans, Placer County, and Washoe County

Of special note are the Region's first roundabouts, which are located in Kings Beach and just outside of Incline Village. Roundabouts reduce traffic congestion, lower speeds, reduce pedestrian exposure, and add aesthetic value to communities.

Kings Beach Roundabouts. Photo: Placer County