1.9 Transportation Element

Overview

The Transportation Element of the Regional Plan seeks to establish a safe, efficient, and integrated transportation system that reduces reliance on the private automobile, provides for alternative modes of transportation, serves the basic transportation needs of the citizens of the Tahoe Region, supports the economic base of the Tahoe Region, and minimizes adverse impacts on people and the environment. The TRPA Compact specifically calls for:

> *"A transportation plan for the integrated development of a regional system of transportation, including but not limited to parkways, highways, transportation facilities, transit routes, waterways, navigation facilities, public transportation facilities, bicycle facilities and appurtenant terminals and facilities for the movement of people and goods within the region. The goal of transportation planning shall be:*
>
> *"To reduce dependency on the automobile by making more effective use of existing transportation modes and of public transit to move people and goods within the region;*
>
> *"To reduce to the extent feasible air pollution which is caused by motor vehicles; and*
>
> *"Where increases in capacity are required, the agency shall give preference to providing such capacity through public transportation and public programs and projects related to transportation."*

To meet the above objectives, the Transportation Element sets out goals and policies that promote land-use changes and development patterns that support modes of transportation other than the automobile; directly promote mass transit, bicycle, and pedestrian modes of travel; and provide direction on coordination with state and local transportation agencies. The goals and policies currently lay out Transportation Demand Management (TDM) measures, such as employer-based vehicle trip reduction programs, parking management programs, and participation in joint transit service agreements. They also call for Transportation System Management (TSM) measures, such as intersection improvements, turn lanes to reduce turning conflicts, bicycle lanes, transit stops, and utilization of Intelligent Transportation Systems (ITS) technology.

In the goals and policies, roadway improvements are limited to those that would improve traffic flow or water quality. Waterborne and air services are encouraged. The goals and policies seek to provide effective transit service for the elderly, handicapped, and transit-dependent groups. They encourage new public transit and fleet vehicles to be powered by alternative fuels. In addition, the goals and policies specify roadway level-of-service (LOS) requirements, which set limits on the amount of delay that users of private vehicles can experience at signalized and unsignalized intersections.

The Code of Ordinances contains regulations on the collection of mitigation fees to offset the air quality impacts of new vehicle trips caused by changes in development (Chapter 93), collection of mitigation fees on rental car usage (Chapter 95), and transportation demand management through employer trip-reduction programs (Chapter 97). Code Chapter 24 sets forth minimum standards for driveways and parking facilities to minimize interference with traffic flow on streets and highways.

The *Regional Transportation Plan (RTP),* the *Lake Tahoe Region Bicycle and Pedestrian Master Plan,* and the *Intelligent Transportation Systems Strategic (ITS) Plan* are all part of the Regional Plan and list specific transportation projects and implementation details*.* The *RTP* provides specificity on strategies, challenges and opportunities, prioritization, and funding mechanisms for all types of transportation projects. The *Lake Tahoe Region Bicycle and Pedestrian Master Plan* contains bicycling and walking goals and objectives, lists and maps of proposed bicycling and walking projects, design treatments to accommodate bicyclists and pedestrians, project prioritization, and potential funding sources for bicycle and pedestrian projects. Likewise, the *Intelligent Transportation Systems Strategic Plan* lists specific ITS strategies, recommendations, priorities and funding strategies.

TRPA is the designated Metropolitan Planning Organization (MPO) for state and federal transportation planning in the Tahoe Region. In its role as this organization, it is called the Tahoe Metropolitan Planning Organization (TMPO). One requirement of this responsibility is the adoption of a long-range, 23-year transportation plan. The content of the TMPO's *Mobility 2030: Lake Tahoe Regional Transportation Plan*, adopted in October 2008, has been developed to be consistent with all TRPA, federal, and State of California requirements for regional transportation plans.

The purpose of the TMPO's *Mobility 2030* is to attain and maintain the TRPA thresholds and all applicable federal, state, and local standards pertaining to air quality and transportation. The plan includes policies, project implementation plans, and funding strategies to meet these goals. Although *Mobility 2030* functions as a stand-alone document, it is consistent with and incorporated into the Regional Plan through the *RTP*. The policies and strategies contained in *Mobility 2030* do not represent TRPA's land-use and regulatory authority as provided through the Compact; rather, they provide TRPA, acting as the regional transportation planning agency, with the means to make funding allocations and other policy decisions.

In 1992 the TRPA produced a Regional Transportation Plan-Air Quality Plan. *Mobility 2030* does not include a comprehensive Air Quality Plan, but a separate Air Quality Plan will be developed; this plan will be integrated with both *Mobility 2030* and the *RTP*. Upon adoption of the Regional Plan Update (and approval of the *RTP*) the TMPO's plan will be updated for consistency.

Alternative 1—Continuation of Existing Regional Plan

Summary

Alternative 1, the "No Action" Alternative, assumes the continuation of the goals, policies, regulations, and programs of the 1987 Regional Plan, including those in place for transportation. Alternative 1 would be inconsistent with elements of the TMPO *Mobility 2030: Lake Tahoe Regional Transportation Plan* dealing with pedestrian-oriented development, construction of bicycle and pedestrian facilities, and intelligent transportation systems. Under Alternative 1, conflicting policies between the Regional Plan and the TMPO *Mobility 2030* would need to be reconciled.

Goals and Policies
No changes are proposed to this Element under Alternative 1.

Implementation Measures
No changes are proposed to this Element under Alternative 1.

Alternative 2

Summary
Alternative 2 contains strategies and regulations that strive to create communities where residents and visitors have transportation choices. They would be attracted out of their cars by walkable neighborhoods, a well-connected bicycle network, and convenient transit. All modes support each other – user fees related to private vehicle use support the transit system; transit ridership, bicycling, and walking reduce traffic congestion. Dedicated transitways would evolve over time, as use allows, from bus rapid transit to light rail.

Alternative 2 reflects a new emphasis on pedestrian- and transit-oriented development (PTOD), including accommodation of bicyclists and pedestrians. Mixed-mode streets and related urban environmental improvements would be supported by mixed-use centers and neighborhoods. These streets would be tailored to meet the needs of each community. Mixed-mode streets would provide on-street parking, transit services, comfortable and safe walking paths, and regional bicycle lanes and trails that have connections identified in applicable regional and local plans. Transit would run frequently and bike lanes would be added to all major transportation corridors.

Various transportation options would be available to reduce the need for automobile travel by both visitors and commuters. Transit would be integrated with site capacity and capability. Parking would be managed to encourage walking, bicycling, and transit use. Parking standards would be established that address the specific needs of each community in the Tahoe Basin.

Goals and Policies
Four new goals developed through Pathway's collaborative planning process would be added, and one policy from the 1987 Regional Plan would be modified and elevated to a goal statement, for a total of five new goals. Four other goals from the Plan would be modified to reflect increased emphasis on PTOD, including effective provision of non-automobile travel options.

The following are the four new goals:

(1) Develop and track economic performance indicators related to transportation, support public-private partnerships, and provide incentives for local governments and private entities to participate in redevelopment.

(2) Implement parking management strategies. New policies under this goal would recommend elimination of minimum parking standards and require parking management programs that help provide improvements benefiting transit users, bicyclists, and pedestrians.

(3) Inter-Intra Regional Transportation. Strengthen inter- and intra-regional transportation options into the Lake Tahoe Region that reduce dependency on the automobile.
(4) Develop ongoing regional revenue sources which could include parking fees to fund the local share of transit, bicycle, pedestrian, and other non-automobile transportation improvements, operations, and maintenance.

The 1987 Regional Plan policy that would be modified and elevated to a goal statement is:

(5) The utilization of intelligent transportation systems (ITS) technology shall be considered and implemented, and technology will be used to increase usage of alternative modes.

The following are the four goals from the 1987 Regional Plan that would be modified:

(1) Encourage walkable, mixed-use centers with residential densities that enhance the viability of transit systems. Associated new policies specify that mixed-use centers, PTOD, and shared-use parking and "park once" philosophies are to be integrated into plans. The new policies suggest incentives that support mixed-use and PTOD development philosophies.
(2) Strengthen language related to accommodation of bicyclists and pedestrians in new development and roadway projects. New policies under this goal stipulate that new commercial, multi-family, tourist, recreation, and public service projects must include accommodation of pedestrians and bicyclists in the earliest stages of project development. Another policy stipulates that bicycle and pedestrian access in commercial and residential projects shall, at a minimum, be provided at a level equal to private vehicle access. Bicycle storage capacity should be provided in all new development and increased at existing development, where appropriate.
(3) Promote the use and efficient, coordinated expansion of mass transit. This goal would change the focus to increases in frequency of service and extension of service hours, as opposed to the previous focus on rail.
(4) Maintain and upgrade regional roadways to improve traffic flow and maintain safety. Goal language and associated policies would focus on improving traffic flow instead of limiting improvements to those roadways as needed to meet the goals and policies, as was specified in previous language.

Implementation Measures

Alternative 2 would include the following new measures to implement the new transportation-related policies described above:

- Require all commercial, multifamily, tourist, recreation, and public-service (including roadway) projects to incorporate pedestrian and bicycle facilities into their plans, consistent with the *Lake Tahoe Region Bicycle and Pedestrian Plan.* Implementation of the facilities will be through construction, easements, or in-lieu fees, to be determined by TRPA as appropriate to the scale of development (Code Chapter 30).

- Pedestrian and Class II bicycle facilities (bike lanes) must be constructed, upgraded, and maintained along major travel routes when the edge of roadway is altered or improved (new Code Chapter 94).

- Generate revenue from private vehicle use, and/or parking management plans as described in *Mobility 2030*. While each Community Plan or individual jurisdiction may develop its own parking management plans, strategies could include shared lots in central areas; incentives to visitors to arrive without a car (such as reduced hotel room rates and/or overnight parking charges), free transit or discount passes, and deep discount transit passes for community residents. Market-rate parking charges, parking charges based on congestion levels, or in-lieu parking fees in accordance with Urban Land Institute standards would be required (Code Chapter 24).

- Eliminate parking minimums, establish parking maximums region-wide, and set minimum standards for bicycle parking facilities (Code Chapter 24).

- Update Level-of-Service (LOS) measurement protocols for Town Centers/Tourist Centers in accordance with those under consideration for the National Transportation Research Board Highway Capacity Manual (HCM) 2010. In addition to measuring and setting standards for vehicle LOS, measure and set standards for pedestrian, bicycle, and transit LOS using the measurement protocols described in NCHRP Web-Only Document 128. At this time, we propose evaluating a requirement of minimum level of service C for pedestrians and bicyclists, and level of service D for transit. Vehicle LOS would remain the same as in the current Regional Plan, however, it could be exceeded on a case-by-case basis when necessary to attain the minimum LOS noted above for the other modes. In order to fully develop this implementation measure, the following timeline is proposed:
    - January 1 – Develop descriptive definitions for each LOS for each mode, so that a lay-person can visualize what this condition would look like on the ground.
    - February 1 – Develop a draft table showing which LOS levels may be traded off (i.e., conduct more research to confirm that the proposal above is sound).
    - Summer 2010 – pilot test the proposed methodology and standards in the field.

- Increase fixed-route transit frequency on the North Shore between land use districts designated as Town Center/Tourist Center to 20 minutes, and extend service to evening hours where not currently available. On the South Shore, the goal would be to increase fixed-route transit frequency between land use districts designated as Town Center/Tourist Center to 10-15 minutes, extend transit into neighborhoods and recreation sites, and provide free transit on all fixed routes (Short-Range Transit Plans).

- Increase usage of ITS technology.

- Provide North-South waterborne connection.

- Provide dedicated transit right-of-way in Community Plans.

Alternative 3

Summary

Alternative 3 would primarily continue to implement the current system of transportation regulations in the Basin. There would be some changes designed to recognize state and national trends, such as increased bicycle and pedestrian accommodation. While additional allocations would probably lead to demand for more frequent transit service, incentives for taking transit, such as parking fees, free or discount transit passes, or dedicated transit lanes would not be required or placed as a high priority. As a result, less funding would be available to make transit and other multi-modal improvements.

Goals and Policies

Under Alternative 3, one policy from the 1987 Regional Plan would be modified and elevated to a goal statement. One new goal would be added, and three other goals from the Plan would be modified to reflect increased emphasis on non-auto transportation modes, transit efficiency, and traffic flow. The Goals and Policies would be the same as in Alternative 1, with the following exceptions:

One new goal would be added:

a. Inter-Intra Regional Transportation. Strengthen inter- and intra-regional transportation options into the Lake Tahoe Region that reduce dependency on the automobile.

One policy would be elevated to a goal statement:

> (2) The utilization of intelligent transportation systems (ITS) technology shall be considered and implemented, and technology will be used to increase usage of alternative modes.

These three goals from the 1987 Plan that would be modified:

(1) Strengthen language related to accommodation of bicyclists and pedestrians in new development and roadway projects. New policies under this goal stipulate that new commercial, multi-family, tourist, recreation, and public service projects must include accommodation of pedestrians and bicyclists in the earliest stages of project development. Another policy stipulates that bicycle and pedestrian access in commercial and residential projects shall, at a minimum, be provided at a level equal to private vehicle access. Bicycle storage capacity should be provided in all new development and increased at existing development, where appropriate.

(2) Promote the use and efficient, coordinated expansion of mass transit. This goal would change the focus to increases in frequency of service and extension of service hours, as opposed to the previous focus on rail.

(3) Maintain and upgrade regional roadways to improve traffic flow and maintain safety. Goal language and associated policies would focus on improving traffic

flow instead of limiting improvements to those roadways needed to meet the goals and policies, as was specified in previous language.

Implementation Measures

The implementation measures in Alternative 3 are the same as those in Alternative 1 with the following exceptions:

- Require all commercial, multifamily, tourist, recreation, and public-service (including roadway) projects to incorporate pedestrian and bicycle facilities into their plans, consistent with the *Lake Tahoe Region Bicycle and Pedestrian Plan.* Implementation of the facilities will be through construction, easements, or in-lieu fees, to be determined by TRPA as appropriate to the scale of development (Code Chapter 30).

- Increase usage of ITS technology.

- Provide North-South waterborne connection.

Alternative 4

Summary

Alternative 4 is designed to achieve environmental improvement through a focus on regulation. Reducing the air and water quality impacts of the private automobile is emphasized to a greater extent in Alternative 4 than in Alternative 2. Additional incentives to attract people out of their cars (such as external intercept lots coupled with road user fees on Basin roadways) are included. Property owners whose available parking exceeds that allowed by parking maximums would be required to restore that coverage to natural vegetation and/or SEZ, and transit systems would be required to emit half as many carbon dioxide emissions per person per mile as private vehicles do.

Goals and Policies

Under Alternative 4, the Goals and Policies would be the same as under Alternative 2 with the following exceptions: The parking-related goals and policies would be changed to require coverage restoration of unused parking capacity and external intercept lots with shuttles to land use districts designated as Town Center/Tourist Center. Also, traffic and air quality mitigation sites would be required to be within a quarter-mile of the projects they are mitigating.

Implementation Measures

The implementation measures in Alternative 4 are the same as those in Alternative 2 with the following exceptions.

- Construct external intercept lots with shuttles to land use districts designated as Town Center/Tourist Center (Long-Range Transportation Plans).

- Encourage the Tahoe Transportation District to implement a road user fee on Basin roadways, primarily to fund shuttles from intercept lots (Code Chapter 99).

- In addition to setting parking maximums for all land use types, require coverage restoration of parking capacity that exceeds parking maximums (Code Chapter 24).

- Increase fixed-route transit frequency on the North Shore and South Shore between land use districts designated as Town Center/Tourist Center to 15 minutes or better, extend service to evening hours where not currently available, extend transit into neighborhoods and recreation sites, and provide free transit on all fixed routes (Short-Range Transit Plans).

- Require projects that are used as traffic and air quality mitigation to be within a quarter-mile of the projects they are mitigating (Code Section 93).

- Require that owners and operators of public and private vehicle fleets use the best available fuel technologies that reduce emissions as they replace their fleets (Code Chapter 91).

- Establish a database of all employers participating in the Trip Reduction Ordinance, and require biannual written reports from each participating employer

that document participation activities and level of trip reduction success (Code Chapter 97).