

ONE TAHOE

A transportation funding initiative

Executive Summary
Draft Final Project Report



Prepared for the Tahoe Transportation District

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Glossary and Acronyms

AV	Automated Vehicles
GHG	Greenhouse Gas
JPA	Joint Powers Authority
LPR	License Plate Reader
LTCCP	Lake Tahoe Corridor Connection Plan
NTD	National Transit Database
PDT	Project Delivery Team
RTIP	Regional Transportation Improvement Project
RTP	Regional Transportation Plan
SAV	Shared Autonomous Vehicle
TMDL	Total Maximum Daily Load
TMPO	Tahoe Metropolitan Planning Organization
TNC	Transportation Networking Companies
TRPA	Tahoe Regional Planning Agency
TSM	Transportation System Management
TTD	Tahoe Transportation District
VMT	Vehicle Miles Traveled

Executive Summary

ONE TAHOE: A Transportation Funding Initiative

There is only ONE TAHOE.

Lake Tahoe is a unique place. Forest clad mountains surrounding crystalline blue waters of amazing clarity create a stunning destination where one can experience contemplation, relaxation, rejuvenation, and recreation. The Lake's natural environment provides opportunities for hiking, camping, skiing, biking, swimming, boating, and fishing. The experience of cultural attractions including theatre, music, dining, gaming, arts, museums, and historic sites, is enhanced by this stunning setting.



The "Tahoe Experience" is enjoyed by the Basin's 55,000 residents, and also shared year-round by more than 25 million visitors!

The "Tahoe Experience", enjoyed by the Basin's 55,000 permanent residents daily, is also shared with more than 25 million annual visitors. It is this experience, and the visitors who are attracted to share it, that is the primary driver of the Basin's economy. Of the visitors, an estimated 42% come into the Basin for a part of one day while the remainder stay longer, averaging 4-5 nights.

The Tahoe we love is threatened.

The quality of the "Tahoe Experience" is threatened by the almost exclusive use of the automobile for travel by both visitors and residents. In fact:

- More than 50 million vehicle trips are made into, out of, and within the Basin annually.
- About 75 % of these trips are made by visitors and 25% by residents.
- It is estimated that there will be a 25% increase in visitation between 2014 and 2035.

Our almost exclusive reliance on the automobile threatens the quality of the "Tahoe Experience" and our economic prosperity.

Unfortunately, visitation is not uniform throughout the year. During peak times of the year, peak times of day, weekends, and special events, Tahoe's transportation system is simply overwhelmed by the number of vehicles. As a result, extreme traffic congestion resulting in hours long delays is not uncommon in the winter or summer peaks. Congestion also increases accidents between vehicles, and between vehicles and pedestrians or cyclists. Lack of parking at popular destinations requires people to park in less safe locations, and the lack of sidewalks and paths often force pedestrians to walk on road shoulders dangerously close to moving traffic. Additionally, congestion also results in greater auto emissions that negatively impact air quality, increases greenhouse gases, and contributes to algal blooms in the Lake. Particulate matter from roadways and parking lots accounts for 70% of the particulates entering Tahoe which are a significant factor in declining Lake clarity. The memory of a wonderful day at Tahoe can be wiped out by the hassles of getting to, from, and around the Lake, and may make one think twice about coming again.





Concern over the potential for a catastrophic wildfire in the Tahoe Basin is heightened by our travel patterns and current limited transportation infrastructure. It is more likely that a fire would occur during the summer months when visitation is at its peak. Moving emergency equipment and personnel into the Basin while simultaneously trying to evacuate large numbers of people traveling by vehicle out of the Basin will be extremely challenging. This is further

exacerbated by the limited capacity of the Basin’s broadband and wireless communications network which largely fails during peak demand periods. Inability to communicate with Emergency Medical Service personnel and travelers during a major wildfire could make a dangerous situation far worse.

Significantly addressing the Basin’s traffic congestion by building additional roadway capacity is simply not an option. The Tahoe Regional Planning Compact bars the construction of additional road capacity by policy. In addition, the extreme environmental sensitivity of the Basin, the high cost of land and construction, and the lack of alternative routes for traffic during construction virtually eliminate adding roadway capacity as a practical matter.

Solutions are available.

The solutions to Tahoe’s transportation problems have been known for decades. The community has developed a vision for a complete, integrated, multimodal transportation system serving the entire Basin. This vision, articulated in successive regional transportation plans (RTPs) over the past 4-plus decades envisions significant new investments in transportation projects and services that can provide realistic alternatives to the automobile, not for every trip, but where and when it works. The current 2017-2040 RTP calls for an over 800% increase in transit service including expanded routes, longer hours, and increased frequency of trips with most of the service being “fare free”.

The community vision for solving our transportation problems is a complete system offering realistic alternatives to the automobile for many trips.



The transit system would also include a cross-lake high speed ferry and local water taxis. Significant investments would be made to more than double bicycle and pedestrian facilities, providing integrated first/last mile access to the transit system, including completion of a bicycle/pedestrian path completely circumnavigating the Lake. New inter-regional transit and rail services will link Tahoe to the major urban centers in Northern California and Nevada. Mobility hubs would provide safe parking for autos with access to the alternative transportation services. While the roadway system would not have increases in capacity, bottlenecks would be improved, and the roadways maintained to a good or better condition saving travelers money and reducing emissions and other pollutants. To support these improvements, investments would also be made in the digital network making it capable of robust traveler and EMS communications. Funding would also encourage low-cost housing construction in transit corridors to meet the needs of workers in the Basin.

In 2014, it was estimated that transit carried about 1.4% of all person-trips within the Basin. These RTP investments, if fully funded and implemented, are projected to increase the transit share of all-person-trips from the current 1.4% to about 20% after the first 12 years of full investment. Even in the face of increased visitation commensurate with projected population growth in the major Tahoe markets in California and Nevada, these investments are expected to actually decrease the number of internal Basin person-trips made by automobiles below 2014 levels by 2033.

Lack of funding keeps the community’s transportation vision from becoming reality.

Although the solutions to Tahoe’s transportation problems have been known for decades, progress towards implementing the planned transportation system has been slow because existing transportation funding sources have never provided enough money to make the community’s vision a reality. After several revenue studies, two attempts were made in the 1980’s to gain public approval for a sales tax dedicated to transportation. Under the legislative authority in-place at that time, two-thirds of voters in each of the portions of the five counties having transportation facilities in the Basin were required for approval. This proved an insurmountable bar and both attempts failed.

Tahoe visitation and traffic have continued to increase and create ever worsening conditions and negative impacts to the “Tahoe Experience”. In 2018, the TTD engaged Morse Associates Consulting, LLC to reexamine the transportation funding shortfall and make recommendations regarding the most appropriate revenue mechanisms for addressing the Basin’s ongoing shortfall in transportation funding. This initiative has been tagged as the “ONE TAHOE transportation funding initiative”. The major items of work in the ONE TAHOE process were:

- Review and refine the magnitude of the transportation funding shortfall.
- Conduct a robust communication process with the public, stakeholders, public agencies, and elected decision makers on the funding shortfall and solicit ideas on funding mechanisms to address it.
- Develop a screening process and evaluation criteria for assessing proposed funding mechanisms.
- Evaluate the proposed funding mechanisms and make a recommendation to the TTD Board on the most appropriate mechanisms.
- Identify next steps for pursuing the proposed mechanisms.

Transportation needs, revenues, and shortfalls.

In defining the transportation funding shortfall, the consultant team relied on the 2017-2040 Lake Tahoe Regional Transportation Plan, supplemented by subsequent studies and plans publicly available including new projects identified by the Bi-state Consultation on Transportation. The consultant reviewed the order of magnitude of expenses and existing revenues included in these plans at a very high planning level for reasonableness. All adjustments and changes to expenses and costs were reviewed by a Project Delivery Team (PDT) composed of representatives from the local governments within the Basin before being submitted to the TTD Board for approval. To maintain consistency and facilitate comparisons and analysis, all expenses and revenues were translated in constant 2017 dollars (2017\$) which was the first year of the RTP.

The results of this process are summarized in Table ES-1 on the next page.

Table ES-1: Tahoe transportation needs, revenue, and shortfalls

Current 2017-2040 RTP with adjustments	(2017\$)
Needs including capital and O&M	Total all years
Roads/Bikes/Peds	\$ 1,302,000,000
Transit	\$ 1,541,000,000
Total Maximum Daily Load (TMDL)	\$ 157,000,000
Technology	\$ 105,000,000
Total needs	\$ 3,105,000,000
Projected revenue from existing sources	\$ 1,579,000,000
Projected shortfall	\$ (1,530,000,000)
Projected average annual shortfall	\$ (66,500,000)

Key Takeaways:

- The \$67 million average annual shortfall in funding is about 1% of the annual Basin economic activity in 2015 as reported by the Tahoe Prosperity Center.
- The \$1.53 billion shortfall is about half of the total \$3.11 billion in needed funding.
- About 62% of the total \$3.11 billion in needs is for operations and maintenance. This is meaningful because the significant majority of existing funding sources are limited to capital expenses.
- Transit needs account for approximately \$1.04 billion of the \$1.53 billion shortfall.
- Although the analysis uses data through 2040, continued commitment of inflation adjusted revenues from all existing and new funding sources beyond that time will be necessary to support a sustainable transportation system.

Ideas to address our transportation funding shortfall.

Through a process that included seven public listening sessions in the Basin, numerous one-on-one and small group meetings, social media, a project webpage, and print media interviews, the need for additional transportation funding was explained and ideas were solicited for proposed funding mechanisms. Ultimately, the twenty-eight suggestions relating to funding displayed in Table ES-2 were made by the public, elected officials, local agencies, stakeholders and professionals on the consultant team.

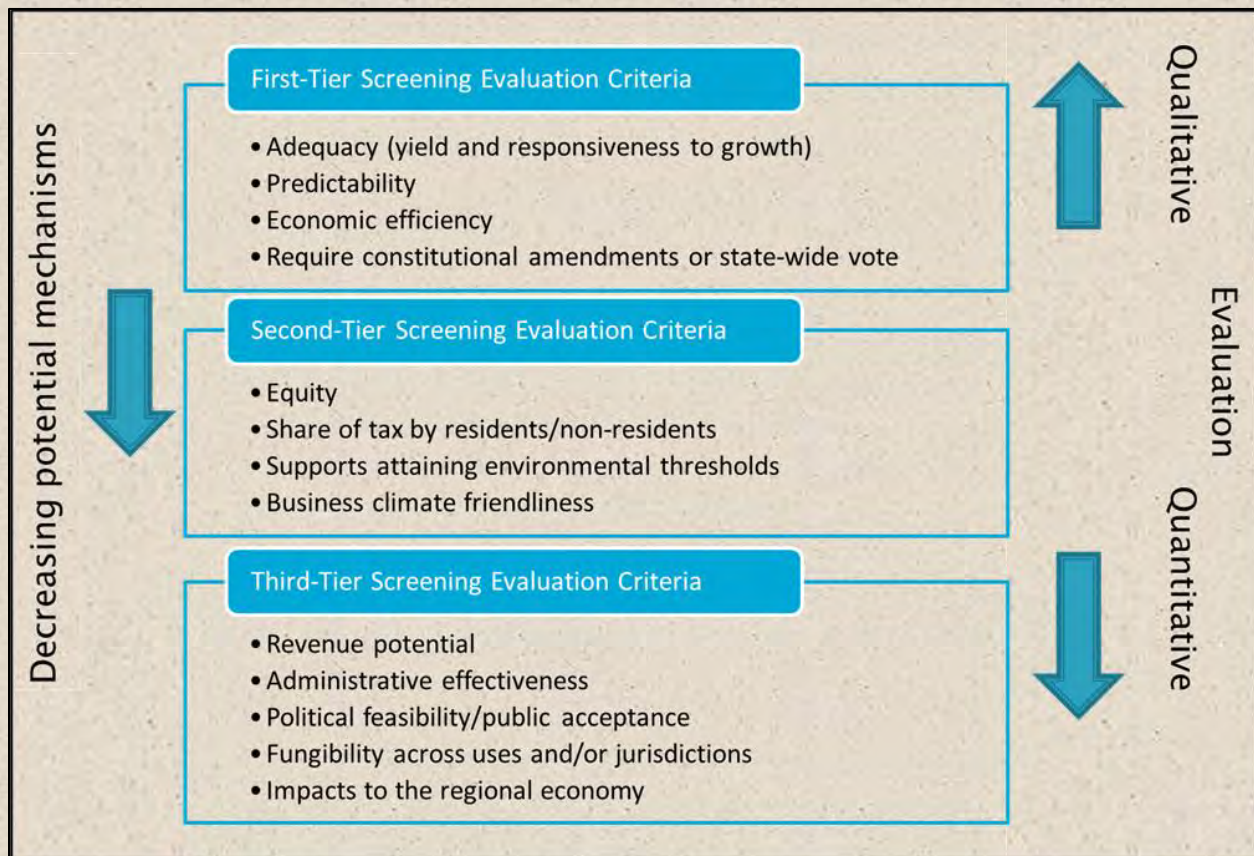
Twenty-eight ideas relating to funding mechanisms were contributed by the public, elected officials, stakeholders, and transportation professionals.

Table ES-2: Ideas for Funding Mechanisms

Ideas for Funding Mechanisms:	
▪ Sales Tax	▪ Joint Powers Authority (JPA)
▪ Income Tax	▪ Zoned “Basin Transportation Fee”
▪ Property Tax	▪ Transportation Fee collected with vehicle reg. fees
▪ Fuel Taxes	▪ Covert all parking in Basin to paid parking
▪ Gross Receipts Tax	▪ Developer impact fees
▪ Employee Tax	▪ Hourly transportation user fee for time spent within the Basin
▪ New sustained federal funding	▪ Congestion pricing
▪ New sustained State of Nevada funding	▪ Increased transit fares
▪ New sustained State of California funding	▪ Basin entry fee
▪ New sustained funding from each county general fund	▪ Vacancy Tax
▪ Cordon pricing	▪ Transit Occupancy Tax (TOT)
▪ VMT fee for travel in Basin	▪ Rental car fees
▪ Special district e.g. Transportation GID	▪ Road utility
	▪ Fee/tax on ski passes
	▪ Tolling

The ONE TAHOE process for assessing proposed funding mechanisms used three tiers of successive screening and thirteen evaluation criteria. The process and the criteria, shown graphically in Figure ES-1, was approved by the TTD Board following review and comment by the PDT. The process was designed to take many ideas and distill them to the most appropriate few for consideration in making final recommendations. At each tier of screening, the results were brought to the PDT for review and comment, then to the TTD Board for discussion and direction.

Figure ES -1: ONE TAHOE screening and evaluation process for proposed funding mechanisms



Tier 1 screening reduced the number of potential funding mechanisms from 28 to nine. Tier 2 screening eliminated five of the nine ideas, and two potential mechanisms made it through the Tier 3 screening.

Key takeaways:

- Neither the federal government nor the States of California and Nevada are in a position to commit long-term new transportation funding to the Tahoe Basin in the order of magnitude needed
- The Tahoe Basin’s 55,000 residents cannot pay for the transportation impacts of 50+ million annual vehicle trips when 75% of them are by visitors. Non-resident contributions to transportation funding in the Basin account for only about 5% of the funding from current sources with 95% allocable to residents. Collecting more from non-residents will be a key for future success. Collection from non-residents needs to be able to effectively capture a reasonable share from the 42% of visitors who are “day trippers”.
- Much of the current transportation funding stream is limited to where it can be spent geographically (e.g., state, county, city boundaries), what modes it can be spent on (e.g., roads versus transit), and what

activities (e.g., capital versus operations). In order to effectively fund a transportation system servicing the entire Basin, new funding must be able to transcend these limitations.

- Revenue sources that exist today and are expected to be there in the future, may not be. Likewise, new demands impacting the need and pace of transportation investments can be expected. New funding mechanisms must be responsive to these types of changes to ensure the transportation system can be reliably and sustainably supported.

Recommendations to the TTD Board.

On 31 January 2020, recommendations were made to the TTD Board on what were considered the most appropriate funding mechanisms given the unique circumstances of the basin. The first recommendation was that the TTD pursue implementing Basin-wide transportation user fees as opposed to taxes. Somewhat analogous to the fees that many of us pay for such things as electricity, water, sewer, or gas, transportation user fees would be used for providing the projects and services identified in the community's Regional Transportation Plan and no other purpose. Fee rates would be set at levels no higher than what is needed to fill the gap between transportation funding from existing revenue sources and the additional amounts needed to fully fund the RTP. Transportation user fees would be implemented and adjusted through transparent administrative processes to provide the Basin with a sustainable transportation system that meets the challenges of an ever-changing world.

To address the fundamental differences between non-resident and resident users, as well as ensure that non-resident day users are paying a fair share, two specific types of user fees were recommended. First would be a transportation user fee levied on non-resident groups (one or more persons) entering the Basin by motor vehicle. Billing information for each group would be captured from the non-resident vehicles entering/leaving the Basin using a combination of license plate readers, transponders, and other proven technologies so that there is no delay or interruption to the group's travel.

The second user fee would be levied on households and businesses within the Basin. Collection of these fees would be piggybacked, wherever possible, on collection processes already in place such as

Daily user fees would be collected from non-resident groups visiting the Basin while Basin households and businesses would pay monthly user fees.

utility billing, property taxes, etc. There would be a flat fee rate for households, and business user fee rates would vary with trip generation.

Figure ES-2 shows illustrative rates for these transportation fees that are projected to generate sufficient net revenue to meet the \$67 million annual shortfall with about 95% of the new revenue coming from non-residents and 5% from residents. These rates are illustrative only and were developed to provide a rough sense of the level that fees

would need to be to generate sufficient net revenue to fill the funding gap. Should decision makers decide to pursue transportation user fees, there is a very significant amount of work that will need to be done to refine the fee rates and structure to address such things that the community might desire such as offering special rates to senior citizens, low-income households, etc.

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Figure ES-2: Illustrative transportation user fee rates

▶ **Non-residents**

- Non-resident, non-commuter groups (1 or more persons) entering the basin by vehicle: \$4.10/day
- Non-resident, commuter groups (1 or more persons) entering the basin by vehicle: \$1.06/day

▶ **Residents**

- Resident households: \$7.00/month
- Resident businesses based on trip generation of land use: average \$71/month

*Planning level estimates based upon one scenario. May be subject to significant revisions based subsequent public/political processes and decision making, and system implementation.

Public and stakeholder sentiment.

ONE TAHOE undertook extensive outreach to the public, businesses, stakeholders, state and local government agencies, and political decision makers. This took the form of seven public listening sessions in the basin, hundreds of hours of meetings with various individuals and groups, social media posts, a project webpage, and news media interviews. These efforts focused on communicating information regarding the transportation funding shortfall, soliciting funding ideas, developing the screening and evaluation process and presenting results as they became available, and sharing the recommendations being made to the TTD Board. In addition, the consultant’s work was informed by the results of several proprietary polls conducted statewide of voters in California and Nevada, as well as with Basin voters.

Key takeaways:

Statewide in California and Nevada the majority of registered voters agreed that:

- Tahoe has a serious transportation problem.
- The transportation problem in Tahoe is getting worse over time and it is hurting the economy.
- It is urgent that the transportation problems at Tahoe get fixed.
- Visitors need to pay their fair share of the cost of Tahoe’s transportation system.
- A daily fee for visitor groups entering the Basin of \$4.30 per day was reasonable.

ONE TAHOE undertook extensive outreach to the public, businesses, stakeholders, state and local government agencies, and political decision makers.

Most voters in California and Nevada considered a user fee of about \$4.10/day for non-resident visitor groups reasonable.

Within the Basin, a majority of the registered voters agreed that:

- A daily fee for visitor groups entering the Basin of \$4.10 was reasonable.
- A transportation fee of \$7.00 per month per household was unreasonable.
- Despite the fact that most people are opposed to paying more fees and taxes, it is necessary to have transportation fees for all travelers in the Tahoe Basin.

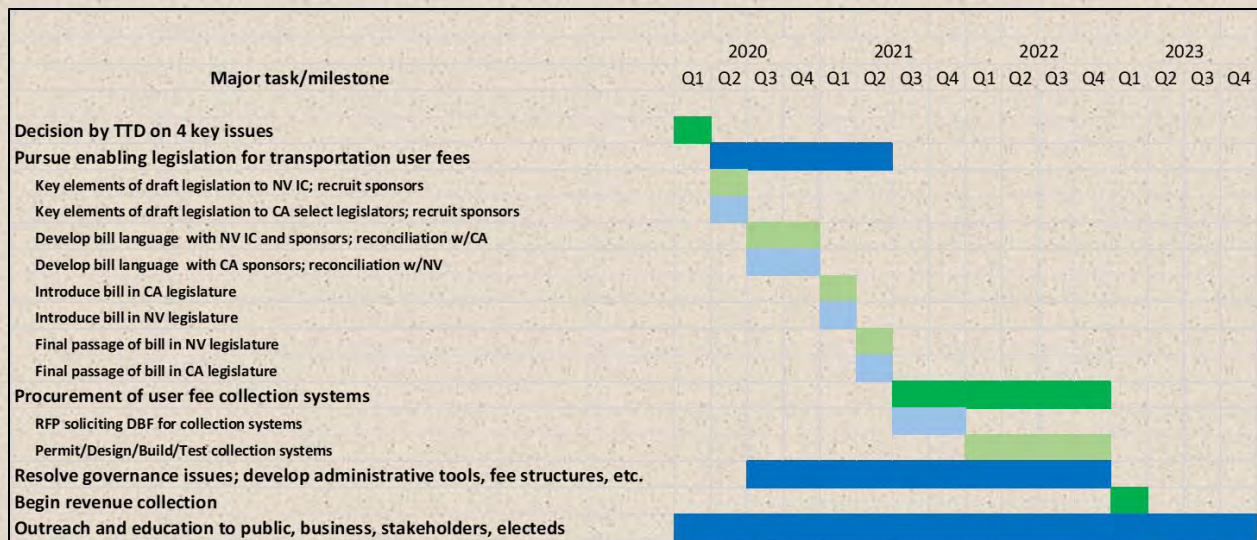
Next steps.

Article IX on the Bistate Compact, which is the only Article that can be amended by agreement between California and Nevada without federal approval, created the Tahoe Transportation District with the:

- Mission to implement projects and services “...in accordance with its adopted transportation plan” (RTP).
- Geography of operations coterminous with TRPA but may go outside of the Basin for connectivity.
- Revenue authority to pursue transportation taxes.

It is apparent that TTD has the right mission and geography, unfortunately the revenue authority has proven to be unworkable. Although multiple options to obtain the legislative authority to levy Basin-wide transportation user fees are available, amending Article IX of the Bistate Compact to enable TTD to institute such fees was recommended by the consultant team as the best and most expeditious path forward. As indicated in Figure ES-3, legislation to amend Article IX could be pursued in the upcoming session of the California and Nevada legislatures. Figure ES-3 also shows that there is much work that needs to be done in parallel to legislative activities to establish the tools to implement and administer a user fee program so that the earliest time at which actual fee collections could begin would be the first quarter of 2023. Since the Nevada legislature meets biannually, missing the current cycle would push the earliest date for fee collection out to 2025.

Figure ES-3: Timeline for implementing transportation user fees



Is now the moment?

Despite the economic impacts of the COVID-19 pandemic to the national economy, anecdotal reports indicate that visitation to Tahoe remains robust. When economic recovery begins, visitation to Tahoe could increase still further given the value for money and the close proximity of the Lake to major California and Nevada markets. Implementing the ONE TAHOE recommendations will be key to sustaining the quality of the “Tahoe Experience” for residents and visitors alike, our economic prosperity, and the Lake’s fragile environment. Transportation investments made possible with the implementation of ONE TAHOE could also be a key element in the economic recovery of the Basin.

Implementing the ONE TAHOE recommendations will be key to sustaining the quality of the “Tahoe Experience” for residents and visitors alike, our economic prosperity, and the Lake’s fragile environment.

Among the public and stakeholders there is a strong agreement:

- Tahoe has a serious transportation problem and it is getting worse.
- It is urgent to fix this problem.
- Both visitors and residents need to bear a reasonable share of the financial burden.

***“If user fees are not the answer, then what?
If now is not the time, then when?”
--- Carl Hasty, District Manager,
Tahoe Transportation District***