

Appendix B:

Screening and Evaluation Process for Potential Funding Mechanisms

Effective Regional Revenue Sources to Address Regional and Local Transportation Projects, Services, and Operations in the Lake Tahoe Region

Subtask 5.4: Tiered Screening Process for the Development and Evaluation of Funding Strategies

Subtask 6.4: Establish Evaluation Criteria for Funding Strategies

prepared for

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1.0 Introduction

The Tahoe Transportation District (TTD), working in conjunction with federal, state, local, and private sector partners, has the authority and responsibility for providing a safe, environmentally-positive, multi-modal transportation system for the Lake Tahoe region. Unfortunately, the TTD cannot completely fulfill this responsibility for the region due to a lack of sustainable, adequate funding. The permanent population in the Tahoe Basin is currently estimated at 55,000 residents, so it is a very small base population that cannot afford to pay for all of the needed transportation projects and services, nor should it. Much of the transportation needs in the Tahoe Basin are the result of the many visitors that come to enjoy its natural beauty and many recreational opportunities.

To effectively evaluate potential funding solutions for the region, it is important to understand that the Tahoe Basin is facing a number of transportation challenges because the majority of travel in the Basin is the result of visitors. Visitors come from all across the United States, as well as around the world, to see the beauty of Tahoe and enjoy the many summer and winter recreational opportunities. The majority of these visitors reside in California and Nevada. Of all trips entering the Basin, 87 percent are visitors, 6 percent are commuters, and 7 percent are residents/home workers. There are winter and summer peak travel seasons, but the summer travel is twice the volume of winter travel. In many ways, the visitor travel to Lake Tahoe is similar to travel to a National Park.

One of the typical mechanisms to capture visitor contributions for needed services is the room tax, but at Tahoe 43 percent of the visitors are day visitors and do not spend the night. Funding mechanisms that target the resident population (fuel taxes, property taxes, sales taxes) will probably not be effective, given the small population that lives within the Tahoe Basin.

The high proportion of visitor trips to the Basin, including a substantial percentage that do not spend the night, will require a funding mechanism that can effectively collect contributions from daily and long term travelers. The purpose of this technical memorandum is to describe a proposed tiered screening process, including the evaluation criteria, for the development and evaluation of funding strategies that can ensure adequate funding is provided from existing and new sources to implement the transportation vision for the Lake Tahoe region. To help frame the process, this memo presents a high-level overview of traditional revenue sources to support transportation investments, and existing transportation revenue sources in the region.

2.0 Traditional Transportation Revenue Sources

Existing funding for transportation in the Lake Tahoe region is a complex mix of federal, state, local and private/public partnerships. In addition to the State of California and State of Nevada, there are five Counties (Placer, El Dorado, Washoe, Carson City, and Douglas) and one incorporated City (South Lake Tahoe) within the Lake Tahoe region. The large tracts of federal lands within the Basin, principally administered by the US Forest Service, are a key driver for recreational travel demand. Each of these entities provides funding for various components of the transportation system within the region. With the exception of South Lake Tahoe, these jurisdictions have responsibilities that extend well beyond the Lake Tahoe region. Like the TTD, these entities are all facing unmet needs within their jurisdiction and there is constant pressure to try and find new resources to meet these needs.

Traditional methods of financing highway construction and maintenance include revenues from state motor fuel taxes, oversize/overweight vehicle permits, motor vehicle sales and use tax, motor vehicle registration fees and sales taxes. Other financing methods used by State Departments of Transportation to support transportation investments include toll revenues, bond proceeds, and public private partnerships.

Local funding sources used by counties or cities to fund transportation includes sales and use taxes, development taxes, vehicle registration fees, income/payroll/employer taxes, and property taxes. Examples of local financing methods allowed in the state of Nevada are described below.

- NRS 377A enables counties in Nevada to impose a 0.5 percent sales and use tax to fund public transit and road projects.¹ The counties of Washoe and Clark have imposed sales and use taxes at the rates of 0.375 percent and 0.5 percent, respectively.²
- NR 278.170 enables counties in Nevada to impose a tax for the improvement of transportation on the privilege of new residential, commercial, industrial and other development.³ The proceeds of this tax are dedicated to the construction and maintenance of highways, avenues, boulevards, streets, sidewalks, as well as overpass and underpass projects. At this time, only the counties of Clark and Douglas have levied this tax to increase transportation funding.⁴
- A supplemental governmental service tax rate of 1 cent, based upon the depreciated value of the vehicle and collected with the vehicle registration fee, may be levied in all counties for transportation projects within that county. At this time, Clark County is the only county in the state levying the additional supplemental rate.⁵

This section provides an overview of these funding mechanisms.

¹ Nevada Revised Statute (NRS). 2016c. "Nevada Revised Statutes, Title 32, Chapter 377A", Nevada Legislature Law Library: 2016.

² Ibid.

³ Nevada Revised Statute (NRS). 2016f. "Nevada Revised Statutes, Title 32, Chapter 278", Nevada Legislature Law Library: 2016.

⁴ Ibid.

⁵ Nevada Revenue Reference Manual, Fiscal Analysis Division, January 2017.

2.1 State Motor Fuel Taxes and Fees

Motor fuel taxes provide approximately one-third of all state transportation funding for roads.⁶ For many states, the state motor fuel taxes represent the largest single source of dedicated revenue for transportation programs. These include per-gallon gasoline and diesel excise taxes and ad valorem sales taxes levied on fuel. Each state sets its own motor fuel tax rates. As of December 2017, tax rates ranged from approximately 12 to 59 cents per gallon for gasoline and 12 to 75 cents per gallon for diesel fuel.⁷ Other taxes are often included with the state motor fuel excise tax, including sales taxes, environmental fees, fees for underground storage tank and other funds, and local taxes and fees. Several states have either all or a portion of their motor fuel tax indexed to a local consumer price index or the wholesale price of fuel.

Table 1 summarizes the federal and state excise taxes and other taxes on gasoline motor fuel by U.S. region effective October 1, 2018. The average state gasoline excise tax is 23.06 cents per gallon. Other taxes account for 11.15 cents per gallon. Adding these other taxes and fees to the state excise taxes results in an average state and local tax of 34.21 cents per gallon. Adding the federal tax on gasoline is 18.40 cents per gallon results in a nationwide average tax on gasoline of 52.61 cents per gallon.

Table 2 summarizes the federal and state excise taxes and other taxes on diesel motor fuel by U.S. region effective October 1, 2018. The average state diesel fuel excise tax is 23.04 cents per gallon. Other state and local taxes average 13.24 cents per gallon. Adding these other taxes and fees to the state excise taxes results in an average state and local tax of 36.27 cents per gallon. Adding the federal tax on diesel is 24.4 cents per gallon, results in a nationwide average tax on motor diesel fuel of 60.67cents per gallon.

Table 3 summarizes the federal, state and county taxes on gasoline and diesel motor fuel for the state of Nevada in 2017. The county mandatory tax can be used for bond service, road construction, maintenance and repair, except 1 cent that can only be used to repair or restore existing county/city roads and streets.⁸

Table 1: Gasoline Motor Fuel Tax Rates (cents per gallon) Effective 10/01/2018

Region	State Excise Tax (a)	Other State Taxes/Fees (b)	Total State Taxes/Fees (c) = (a) + (b)	Total State and Federal Taxes (c) + 18.40
Northeast	24.72	6.49	31.22	49.62
Mid Atlantic	9.71	36.15	45.86	64.26
South Atlantic	18.12	14.61	32.73	51.13
Midwest	24.99	6.30	31.30	49.70
South	19.58	0.52	20.10	38.50
Mountain	26.20	0.30	26.50	44.90
West	37.64	10.10	47.74	66.14
U.S. (Average)	23.06	11.15	34.21	52.61

Source: American Petroleum Institute (API). Rates effective 10/01/2018

Notes:

⁶ National Conference of State Legislatures. Available at <http://www.ncsl.org/research/transportation/recalibrating-the-motor-fuel-tax.aspx>

⁷ National Conference of State Legislatures. Available at <http://www.ncsl.org/bookstore/state-legislatures-magazine/deep-dive-transportation-funding.aspx>

⁸ State of Nevada Transportation. State of Nevada Transportation Facts and Figures 2017.

1. Other taxes includes applicable sales taxes, gross receipts taxes, oil inspection fees, county and local taxes, underground storage tank fees and other miscellaneous environmental fees.
2. Federal excise tax = 18.40 cents per gallon.

Table 2: Diesel Motor Fuel Tax Rates (cents per gallon) Effective 10/01/2018

Region/State	State Excise Tax (a)	Other State Taxes/Fees (b)	Total State Taxes/Fees (c) = (a) + (b)	Total State and Federal Taxes (c) + 24.40
Northeast	30.82	1.37	32.18	56.58
Mid Atlantic	9.04	45.06	54.09	78.49
South Atlantic	20.95	10.38	31.33	55.73
Midwest	24.95	6.38	31.43	55.83
South	20.02	0.49	20.51	44.91
Mountain	25.81	0.43	26.24	50.64
West	33.84	28.05	61.89	86.29
U.S. (Average)	23.04	13.24	36.27	60.67

Source: American Petroleum Institute (API). Rates effective 10/01/2018

Notes:

1. Other taxes include applicable sales taxes, gross receipts taxes, oil inspection fees, county and local taxes, underground storage tank fees and other miscellaneous environmental fees.
2. Federal excise tax = 24.40 cents per gallon.

Table 3: Gasoline and Diesel Motor Fuel Tax Rates (cents per gallon) in Nevada in 2017

Fuel	Federal Tax	State Tax	County Mandatory Tax	County Optional Tax	Total
Gas	18.4	18.455	6.35	Up to 9	52.21*
Diesel	24.4	27.75			52.15

Source: State of Nevada Transportation. State of Nevada Transportation Facts and Figures 2017.

Note: *Up to 52.205 cents per gallon of gas statewide.

The disposition of state-imposed fuel taxes varies by state. A state may direct motor fuel tax revenue to numerous sources, including its department of transportation, special road or bridge funds, county governments, or even state general funds. States have taken the lead in raising fuel taxes to support transportation. While Congress has not increased the federal gas tax since 1993, 23 states and D.C. have raised their gas tax or adjusted their tax formula since 2013 to bring in more revenue for transportation.⁹

⁹ National Conference of State Legislatures. Available at <http://www.ncsl.org/bookstore/state-legislatures-magazine/deep-dive-transportation-funding.aspx>

2.2 State Motor Vehicle Registration Fees

State motor vehicle registration fees are another significant source of dedicated revenue for transportation programs. All states levy motor vehicle registration fees for passenger cars and commercial vehicles. Many states assess a flat fee while other states use a scale based on several metrics such as gross vehicle weight, vehicle age or even fuel efficiency. In some states, county and/or local registration fees are collected either with the state fee or separately.¹⁰

As an example, **Table 4** shows the registration and title fees for selected states in the West region. It should be noted that in some states, vehicle registration fees are not available for programs administered by the state DOTs. For example, in California, vehicle registration fees are earmarked to support the Department of Motor Vehicles and the California Highway Patrol, which are not part of the California Department of Transportation (Caltrans).

Table 4: Vehicle Registration and Title Fees for Selected States

State	Base Registration Fee	Time Frame	Additional Fees	Source
California	\$46	Annual	<ul style="list-style-type: none"> An additional Transportation Improvement Fee ranges from \$25 to \$175 is charged based on vehicle value, and beginning in 2020 will be readjusted annually based on the California Consumer Price Index. Plus a \$24 California Highway Patrol fee, and additional fees based on the type of vehicle, license plate type, and the owner's county of residence and driving record. Most vehicles are assessed a vehicle license fee (VLF) of 0.65% of value, in lieu of property tax, based on the purchase price/value when acquired and funds go to cities and counties. The VLF decreases for the first 11 renewal years. Beginning July 1, 2020, an additional fee of \$100 will be required on electric vehicles. 	Cal. Vehicle Code §§9250 et seq., Cal. Revenue and Taxation Code §§11052 et seq., and California Department of Motor Vehicles
Nevada	\$33	Annual	<ul style="list-style-type: none"> The state charges an additional governmental service tax based on the value of the vehicle. Some counties charge a supplemental governmental services tax. 	Nevada Department of Motor Vehicles

¹⁰ National Conference of State Legislatures. Available at http://www.financingtransportation.org/funding_financing/funding/state_funding/motor_vehicle_registration_fees.aspx

State	Base Registration Fee	Time Frame	Additional Fees	Source
Oregon	\$43	Biennial	<ul style="list-style-type: none"> • Additional county fees may apply. • Brand new vehicles are assessed two registration periods at once for a total of four years at \$172. • In addition to the registration fees additional fees based on MPG will be required for all vehicles. Vehicles with a rating of 0-19 MPG must pay \$20, 20-39 MPG \$25, and 40 MPG or greater \$35. • Beginning January 1, 2020 an additional fee of \$110 will be required on electric vehicles (H.B. 2017 (2017)). 	Ore. Rev. Stat. §803.420., H.B. 2017
Washington	\$30 (for passenger vehicles but increased fees apply depending on several factors such as vehicle type and weight, location, plate type and more.)	Annual	<ul style="list-style-type: none"> • Additional fee of \$150 is required on electric vehicles. 	Wash. Rev. Code §46.17.350 and Washington State Department of Licensing

Source: National Conference of State Legislatures (NCSL), Vehicle Registration Fees 2017.

2.3 State Motor Vehicle Sales Taxes

State with sales taxes imposed on motor vehicle sales dedicated to transportation purposes include Connecticut, Kentucky, Massachusetts, Minnesota, Missouri, Nebraska, New Jersey, North Carolina, South Carolina, South Dakota, Vermont, Virginia, Washington and West Virginia. In Minnesota, for example, the motor vehicle sales tax is a 6.5 percent tax applied to the sale of new and used motor vehicles registered.¹¹ The tax, based on the purchase price, is imposed instead of the state general sales tax and collected by auto dealers at the time of sale or by registrars when the vehicle is registered (for private sales).¹²

2.4 Tolls

Many state transportation agencies see toll facilities as a way to close funding gaps for transportation projects in a time of constrained public resources to support transportation investment. Interest in this funding mechanism today is mainly due to the supportive federal tolling regulations beginning in 1991 with the Intermodal Surface Transportation Efficiency Act (ISTEA). The use of Federal-aid in conjunction with private resources for road development purposes has been expanded through subsequent Federal-aid authorization acts, including the 2012 Moving Ahead for Progress in the 21st Century (MAP-21) and the 2015 Fixing America Surface Transportation (FAST) Act. Public-private partnership development of toll roads has been the focus of most state Departments of Transportation activities in privatization.

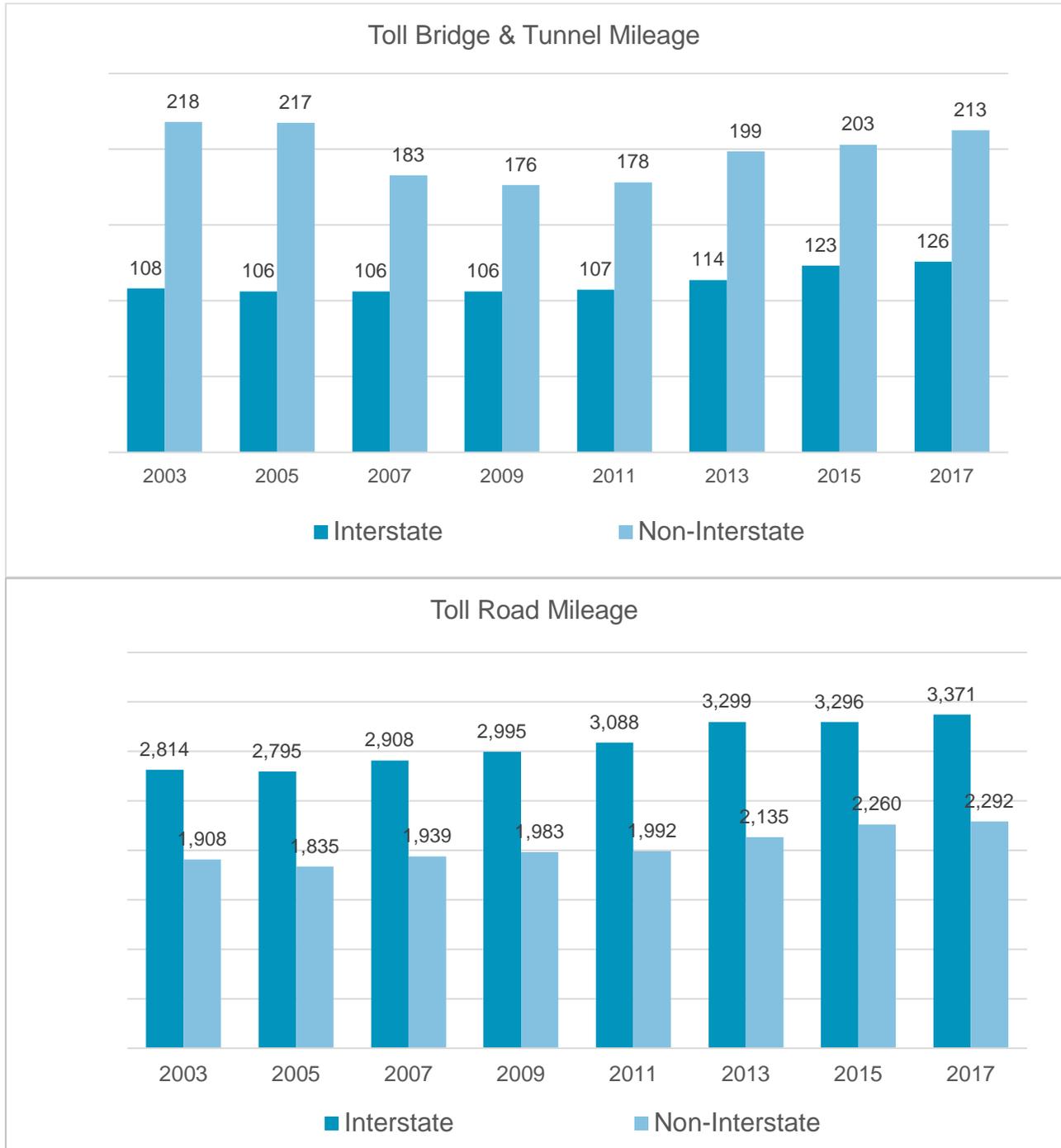
¹¹ American Association of State Highway and Transportation Officials (AASHTO). Transportation Governance and Finance. A 50-State Review of State Legislatures and Departments of Transportation (November 2016).

¹² Minn. Stat. §§ 297B.02, 297B.13.

Figure 1 shows tolled mileage trend in the last 14 years. Tolled mileage has grown by about 19 percent, from 5,047.86 miles in 2003 to 6,00.66 miles in 2017, and this trend is expected to continue as many states have initiatives in place to make tolls a viable highway funding option. Some of the densest metropolitan areas in the U.S. have implemented tolled express lanes either for traffic management purposes, or as a means of raising a small amount revenue (or both). However, traffic management/encouraging efficient usage is generally the main reason for tolling lanes. It is generally accepted that newly constructed tolled lanes will never generate sufficient revenue to cover the entire cost of the full lane of infrastructure (tolled lanes generally generate somewhat more revenue than the cost of operations and maintenance for those lanes, but the revenue generated will not be sufficient to cover bond payments for the construction of the lanes).

Nationwide, tolled-lane revenues are generally dedicated to pay for construction, operations and maintenance of the lanes themselves, and in some instances for investment in supporting transportation facilities or services within the same corridor, such signalization of on-ramps, widening arterials, or increased transit service within the corridor.

Figure 1: Toll Mileage Trends, 2003 to 2017



Data Source: U.S. Department of Transportation. Federal Highway Administration. Office of Highway Policy Information. Toll Facilities in the United States. Available at <https://www.fhwa.dot.gov/policyinformation/tollpage/>.

2.5 Other Sources of State Revenue

Other sources of state transportation revenue include general fund appropriations, bond proceeds, inspection fees, driver license fees, advertising, rental car taxes, state lottery/gaming proceeds, oil company taxes, vehicle excise taxes, vehicle weight fees, investment income, and other licenses, permits, and fees.

Table 5 shows the states using oversize/overweight truck permit fees, sales taxes on rental vehicles and driver's license fees to finance transportation projects.

Table 5: States Using Oversize/Overweight Truck Permit Fees, Sales Taxes on Rental Vehicles and Driver's License Fees to Finance Roads and Bridges

State	Oversize/overweight truck permit fees	Sales Taxes on Rental Vehicles	Driver's License Fees
Alabama	x		
Alaska		x	
Arizona	x	x	x
Arkansas	x		
Colorado	x	x	
Delaware	x		
Florida	x	x	
Hawaii		x	
Idaho	x		
Illinois	x		
Indiana	x		x
Iowa	x	x	
Kansas	x		x
Kentucky	x		x
Louisiana	x		
Maine	x		x
Maryland	x	x	x
Massachusetts	x		x
Michigan	x		
Minnesota	x	x	
Mississippi	x		
Missouri			x
Montana	x		
Nebraska	x		
Nevada			x
New Mexico	x	x	x
New York	x	x	x
North Carolina	x		x
North Dakota			x
Oklahoma	x		
Oregon	x		x

State	Oversize/overweight truck permit fees	Sales Taxes on Rental Vehicles	Driver's License Fees
Pennsylvania	x		x
Rhode Island		x	x
South Dakota		x	
South Carolina	x		x
Tennessee	x		
Texas	x		x
Utah	x	x	
Vermont		x	
Virginia	x	x	
Washington		x	
West Virginia	x	x	
Wisconsin	x	x	x
Wyoming	x		x

Source: American Association of State Highway and Transportation Officials (AASHTO). Transportation Governance and Finance. A 50-State Review of State Legislatures and Departments of Transportation (November 2016).

2.6 Local Funding Sources

Sources of local funding for transportation purposes include local option fuel taxes, sales taxes and fees, vehicle registration fees, income/payroll/employer taxes, property taxes, advertising revenue, naming rights revenue, impact fees and transportation utility fees. This section provides examples of some of these funding mechanisms.

Local Option Sales Taxes

Sales taxes levied at the local level devote a percentage of a local sales tax to transportation purposes generally or to a prescribed program of projects with a defined expenditure plan. The states of Nevada and California provide metropolitan planning organizations (MPOs) with direct authority over local option taxes. Nevada has given MPOs control over local option gasoline and transit sales taxes in its two major metropolitan counties. In California, three single-county MPOs directly administer programs for half-percent sales taxes.¹³ A 0.5 percent tax is available to all counties in Nevada to establish and maintain a public transit system; for construction, maintenance and repair of public roads; and/or for the improvement of air quality.¹⁴ **Table 6** provides a sample of public agencies that use local options sales tax to fund transportation projects.

¹³ A Quiet Revolution in Transportation Finance: The Rise of Local Option Transportation Taxes. *Transportation Quarterly*, Vol. 57, No.1, Winter 2003 (19–32).

¹⁴ Afonso, W.B. Local sales tax laws: State by State Details. Comprehensive overview of state local sales tax laws.

Table 6: Sample of Public Agencies that use Local Options Sales Tax to Fund Transportation Projects

Public Agency	Sales Tax
TransNet, California	½ cent sales tax levied in San Diego County to fund local transportation projects
Capital Metro, Texas	1% sales tax levied on 9 jurisdictions in Williamson and Travis Counties to help fund Capital Metro budget
Metropolitan Atlanta Rapid Transit Authority (MARTA), Georgia	1% sales tax levied in Fulton and DeKalb Counties to help fund MARTA budget
Dallas Area Rapid Transit (DART), Texas	1 cent sales tax levied on 13 cities in the metropolitan area to fund DART budget

Source: U.S. DOT, Federal Highway Administration. Center for Innovative Finance Support. Local Revenue. Available at https://www.fhwa.dot.gov/ipd/value_capture/sources_tools/local.aspx.

Vehicle Registration Fees - Many states authorize local governments to levy local vehicle registration fees that can be used for local transportation needs.

Income/Payroll/Employer Taxes – Some states have provided authority to local governments to levy income, payroll, or employer taxes specifically dedicated to transportation. **Table 7** provides a sample of public agencies that use this mechanism to fund operating and capital expenditures of transit systems.

Table 7: Sample of Public Agencies that use Payroll/Occupational Taxes to Fund Public Transit Operating and Capital Expenditures

Public Agency	Sales Tax
Transit Authority of River City (TARC), Louisville, KY	Nearly 60 percent of TARC's funding is from an occupational tax levied on residents of Jefferson County, Kentucky. A tax of 0.2% of taxable income is levied annually. The taxes are collected by the Revenue Commission of the Louisville Metro Government and deposited into the Mass Transit Trust Fund (MTTF). TARC is authorized to draw MTTF funds for operating and capital expenditures. For the year ended June 30, 2017, TARC recorded revenues of \$51,077,933 and
Lake Transit District Boundary, Oregon	Payroll and self-employment taxes, which provide revenue for mass transit in Oregon and elsewhere, are administered and collected by the Oregon Department of Revenue (DOR). The payroll and self-employment tax rates are a percentage of the wages paid by an employer and the net earnings from self-employment for services performed within the Lane Transit District (LTD) boundary. The tax rate for calendar year 2018 is 0.0073.

Sources:

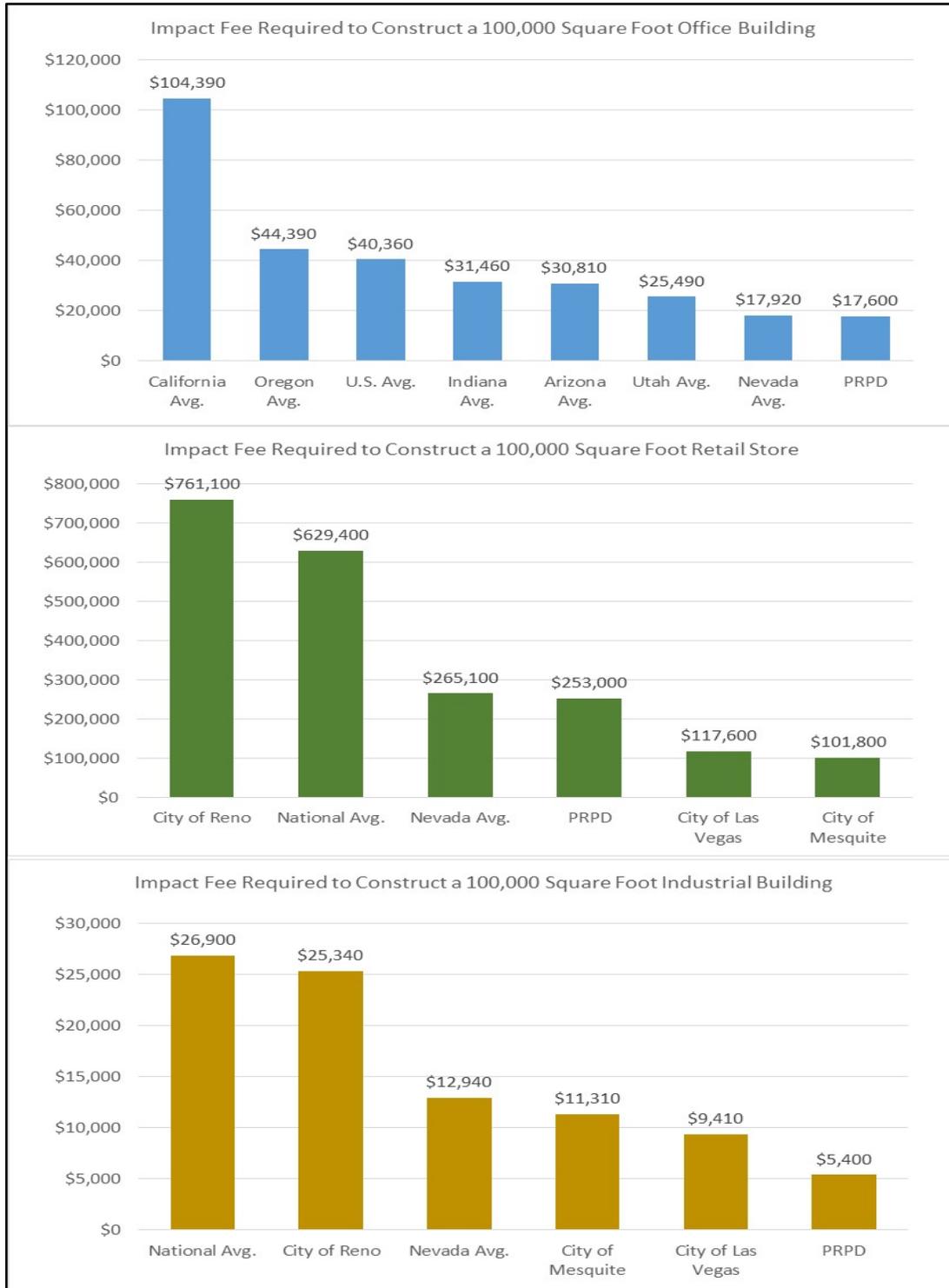
1. Transit Authority of River City (A Component Unit of Louisville/Jefferson County Metro Government). Notes To Financial Statements, June 30, 2017
2. The Lane Transit District (LTD). Payroll and Self-Employment Tax Information. Available at <https://www.ltd.org/payroll-self-employment-tax-information/>

Property Taxes - Dedicated property taxes are generally used for local road and street capital and maintenance needs, although some states have authorized dedicated property taxes for transit. Cities that use property taxes to fund transportation projects include Reno (Nevada), Tempe (Arizona), Ann Arbor (Michigan), and Madison (Wisconsin). Reno uses this property tax revenue to finance city road and street improvements.¹⁵

Impact Fees for New Development - Impact fees for new development are fairly common in many cities, counties and metropolitan areas as a way of assessing real-estate developers for the direct public infrastructure costs incurred by new development, so that those costs are not borne by existing residents. For example, if a new retail store requires that the access road connecting the store to the existing highway network be expanded to accommodate the traffic to be generated by the new development, the impact fee would be a way of ensuring that the developer will pay for the expansion of the access road. Impact fees may also go toward capital costs incurred by schools, libraries, parks, fire stations, police stations, storm water drainage improvements and sewer and water systems. In general, impact fee rates vary with traffic generated by the type of development. Using impact fees data at the national, state, city and regional level, **Figure 2** provides a comparison of the impact fees required to construct a 100,00 square foot of office, retail and industrial development.

¹⁵ Nevada Department of Taxation. Division of Local Government Services. Nevada Property Tax: Elements and Application.

Figure 2: Comparison of Impact Fees for new Office, Retail and Industrial Development using a Representative Sample of Data at the National, State, City and Regional Level, 2011



Source: Comparison of Development Impact Fees, Pahrump Regional Planning District, Nye County Planning Department, Nevada (July 8, 2011).

Note: PRPD stands for Pahrump Regional Planning District.

Urban Road Pricing – Road pricing schemes charging private vehicles have been introduced by municipal authorities mainly in an attempt to price the externalities caused by traffic. The three largest European urban road pricing systems started over a decade ago, first in London in 2003, then in Stockholm in 2006, and finally in Milan in 2008. The three cordon pricing schemes have some commonalities as well as differences features (**Table 8**), including:

- All of them applied the charge schemes to central city areas served by an extended and dense transit network.
- The size of the charged area varies from 8 square km in Milan, to 21 square km in London (not considering the temporary western extension) to 30 square km in Stockholm.
- All of them use similar technologies where cameras automatically control access to central areas and recognize car plates.
- While London and Milan set daily entrance charges, allowing for unlimited entrances, exits and travels during the time of charge application, Stockholm adopted a “pay as you drive” toll to be paid at every single crossing of the area, differentiated for the time. Charges are applied to entrance vehicle crossings in Milan, to entrance and exit vehicle crossings in Stockholm, and to all trips (even inside the cordon) in London.
- The main aim for all systems is reducing congestion. A secondary aim is to reduce air pollution (this aim was prevalent in the first phase in Milan).
- In all systems a flat rate is imposed: at present it amounts to £11,50 in London (USD \$14.88), SEK 20 in Stockholm (USD \$2.20) and € 5 in Milan (USD \$5.66). In the first phase in Milan charge was differentiated (€0, 2, 5 and 10) on the basis of PM10 emission factors.
- Charges are on daily basis in London and Milan and on number of accesses in Stockholm (with a daily maximum of SEK 60). In London circulation in the area is charged, while in Milan access to the area is charged and in Stockholm crossing of the area is charged.
- Charges operate only in the daytime (11 hours a day in London, 12 hours a day in Stockholm and Milan) during working days.
- All systems present several exemptions and reduced charges for specific types of vehicles (e.g., public transportation vehicles, “clean vehicles”) and residents of the charged area.
- Political and public debate were relevant factors in setting up and decide permanency of the systems. In the cases of Stockholm and Milan a referendum was a key factor at that purpose. In the three cities, even when polls showed constituents were not in favor when the charge was announced, after implementation the majority of constituents turned in favor.
- The ratio between operating costs and revenues amount to 39% for London (in 2008; falling from initially 65%), 28% for Stockholm and over 100% for Milan’s Ecopass scheme and 65% for Milan’s Area C (increasing from initially 46%).

- In all cases a robust increase of public transportation was announced and implemented in coincidence with the introduction of the charge and a substantial part of revenues are invested for sustainable mobility (in Stockholm indirectly through an agreement with national governments).
- In all cases the following trend effects, though in different measures, are demonstrated: traffic reduction and modal shift, mainly through increase of passengers of public transport. A relevant pollution emission reduction happened in the three cities. An accident reduction was also experienced in Milan and at a minor level in London.

Table 8: A Comparison of Three European Road Charge Schemes: London, Stockholm and Milan

Feature	London	Stockholm	Milan
Starting year	February 2003 (Source 1)	January 2006 (7 months trial) Permanent from August 2007 (Source 2)	Pollution charge from January 2008 Congestion charge from January 2012 (formally a trial until April 2013) (Source 4)
Area and Metropolitan Population	21 square km (8.1 square mile) or 1.3% of the city surface Western extension from February 2007 to January 2011 Metropolitan area population = 14 million inhabitants (Source 1)	30 square km (11.6 square mile) or 16% of the city surface. Stockholm County population = 1.9 m inhabitants (Source 2)	8 square km (3.1 square mile) or 4.5% of the city surface Metropolitan area population = 3 million inhabitants (Source 4)
Charge level	£ 5 £ 8 from July 2005 £ 10 from January 2011 £ 11.50 (USD \$14.88) since June 2014 (Source 1)	SEK 20 (USD \$2.20) during peak periods (7:30-8:30, 16:00-17:30), SEK 15 (USD \$1.65) 30 minutes before and after the peak periods and SEK 10 (USD \$1.10) during the rest of the period 6:30- 18:30. The total charge per day is capped at SEK 60 (USD \$6.61) (Source 2)	<u>Pollution charge:</u> proportional to vehicles' emission class of €0, €2 (USD \$2.27), €5 (USD \$5.66) or €10 (USD \$11.33) per day. <u>Congestion charge:</u> flat charge of €5 per day (USD \$5.66) (Source 4)
Application of charge	Cordon pricing Daily fee Pay for entrance, exit, intra-area trips (Source 1)	Cordon pricing Single passage fee (with daily limit) Pay for entrance and exit of the area (Source 2)	Cordon pricing Daily fee Pay for entrance in the area (Source 4)
Time of application	Weekdays, 7:00-18:00 (Source 1)	Weekdays, 6:30-18:30 (Source 2)	Weekdays, 7:30-19:30 (Source 4)
Set up investment	160 m £ (203.5 m €) (Source 1)	1,900 m SEK (207.2 m €) (Source 2)	7 m € (excluding sunk costs) (Source 4)

Feature	London	Stockholm	Milan
Gross revenues per year (excluding fines)	from 138 m £ to 227 m £ in 2012 (from 175.5 m € to 288.6 m € in 2012) (Source 1)	763 m SEK (83.2 m €) (Source 2)	from 12 m € in 2008 to 5.9 m € in 2011 (Ecopass) (Source 4) 30 m € in 2012 (Area C) (Source 4) 29.9 m € in 2013 (Area C – provisional data) (Source 5) 21.4 m € in 2014 (Area C – provisional data) (Source 6)
Ratio operating costs / revenues	39% in 2008; falling from initially 65% (Source 1) 95% in 20YY? (Source 7)	28% in 2011 (Sources 2 and 3) 8% in 20YY? Source 7)	Over 100% for Ecopass in 2011. 65% for Area C in 2014 (increasing from initially 46%) (Source 4)

Sources:

1. Transport for London. Congestion Charge. Available at <http://tfl.gov.uk/modes/driving/congestion-charge>. Accessed October 8, 2018.
2. Björn Hårsman and John M. Quigley. Political and Public Acceptability of Congestion Pricing: Ideology and Self-Interest in Sweden, 2016. Available at http://www.accessmagazine.org/wp-content/uploads/sites/7/2016/01/access38_congestion_pricing_sweden.pdf. Accessed October 9, 2018
3. Erdmenger, C., Frey, K., 2010. Urban road charge in European cities: A possible means towards a new culture for urban mobility?. Report of the Joint Expert Group on Transport and Environment on urban road pricing schemes in European cities of the EU Commission.
4. Edoardo Croci (IEFE-Bocconi University, Milan) and Aldo Ravazzi Douvan (Italian Ministry of Environment, Rome). Urban road pricing: the experience of Milan (2016). Available at http://ic-sd.org/wp-content/uploads/sites/4/2016/06/Milan-Urban-Road-Pricing_07.08.15.pdf. Accessed November 9, 2018
5. Comune di Milano, 2014. Rendiconto della gestione. Esercizio 2013.
6. Comune di Milano, 2015. Relazione sulla gestione 2014.
7. Tri-State Transportation Campaign. Road Pricing in London, Stockholm and Singapore. A Way Forward for New York City (Jan 4, 2018). Available at http://nyc.streetsblog.org/wp-content/uploads/2018/01/TSTC_A_Way_Forward_CPreport_1.4.18_medium.pdf. Accessed November 9, 2018

Recreational Fees - The Federal Lands Recreation Enhancement Act (FLREA) allows the National Park Service (NPS) revenue generated by entrance and recreation fees to be used to enhance the visitor experience at national parks. Specifically, the NPS is authorized to use entrance and recreation fees for (1) repair, maintenance, and enhancement of the park that improve visitor enjoyment, visitor access, and health and safety; (2) habitat restoration directly related to wildlife-dependent recreation including hunting, fishing, wildlife observation, and photography; (3) law enforcement related to public use and recreation; and (4) direct capital or operating costs associated with the recreation fee program to pay for entrance station and campground staff.¹⁶ Under the FLREA, at least 80 percent of the entrance fees remains in the park where it

¹⁶ National Park Service. Your Fee Dollars at Work. Available at <https://www.nps.gov/aboutus/fees-at-work.htm>. Accessed Nov 12, 2018.

is collected while the remaining 20 percent is used to fund projects in other national parks that do not collect entrance fees.¹⁷

Only 118 of 417 park sites nationwide charge an entrance fee. As part of its ongoing efforts to address aging park infrastructure and improve national parks visitor experience, the NPS has raised the entrance fees charged at 77 national parks. The new fee structure, which went into effect June 1, 2018, increases entrance fees by 10 percent, rounded up to the nearest \$5 or \$10 increment. The raise in entrance fees excludes visitors under 16 years of age or holders of Senior, Military, Access, Volunteer, or Every Kid in a Park (EKIP) passes. The additional revenue to be generated by the new fee structure is expected to address the \$11.6 billion in deferred maintenance across the 417 park sites, generating the needed resources for improvements to the aging infrastructure of national parks such as roads, bridges, campgrounds, waterlines, bathrooms, and other visitor services.¹⁸

The new fee structure applies to the 17 busiest national parks, that is, Arches, Bryce Canyon, Canyonlands, Denali, Glacier, Grand Canyon, Grand Teton, Olympic, Sequoia & Kings Canyon, Yellowstone, Yosemite, Zion, Acadia, Mount Rainier, Rocky Mountain, Shenandoah National Parks, and Joshua Tree National Parks. These 17 parks collect 70 percent of the total of all entrance fees throughout the country.¹⁹ Estimates indicates that the new price structure applied to the top 17 fee-charging parks will increase national park revenue by \$70 million per year, representing a 34 percent increase over the \$200 million collected in Fiscal Year 2016.²⁰

This is not accurate; the NPS lifetime senior pass costs \$80; it was raised in August 2017.

¹⁷ Ibid.

¹⁸ National Park Service. National Park Service Announces Plan to Address Infrastructure Needs and Improve Visitor Experience. April 12, 2018. Available at <https://www.nps.gov/orgs/1207/04-12-2018-entrance-fees.htm>. Accessed Nov 12, 2018.

¹⁹ Targeted Fee Increases at Parks to Address Maintenance Backlog Fact Sheet. Available at <https://parkplanning.nps.gov/document.cfm?documentID=83652>. Accessed Nov 12, 2018.

²⁰ Ibid.

3.0 Existing Transportation Revenue Sources in the States of Nevada and California

3.1 Revenue Sources Authorized by State Constitution or Statute

Nevada and California use a variety of taxes and fees to support roads and bridges, public transit, rail, aviation, ports, and pedestrian and bicycle projects in the states. These revenue sources include state fuel taxes, vehicle fees, sales taxes, tolls, mode-specific revenues, and other sources. In addition to revenues used by DOTs and other state agencies, turnpike or port authorities collect and use revenues to support specific elements of the transportation system. State-level revenue sources authorized by state constitution or statute currently being use by the states of Nevada and California are summarized in **Table 9** and **Table 10**, respectively.

Table 9: Nevada Revenue Sources Authorized by State Constitution or Statute in Current Use

State-Level Revenue Sources	Eligible Transportation Activities			
	Roads and Bridges	Public Transit	Ports and Waterways	Pedestrian and bicycle projects
Fuel Taxes: gasoline and diesel (fixed rate)	X			
Fuel taxes: alternative fuels	X			
Fuel taxes: recreational boating			X	
Vehicle registrant and title fees	X			
Truck registration fees (based on gross vehicle weight)	X			
Driver's license and state ID card fees	X			X
Passenger carrier excise taxes	X			
Petroleum cleanup fees	X			
Occupational and business licensing fees	X			
Governmental services taxes	X			
Interest income		X (includes commuter rail and light rail)		

Source: American Association of State Highway and Transportation Officials (AASHTO). Transportation Governance and Finance. A 50-State Review of State Legislatures and Departments of Transportation (November 2016).

Notes:

1. Authorized by state constitution or statute means that the revenue source is specifically authorized in law, not just permitted under more general authorizations or powers.
2. Eligible transportation activities include the state-level development and operation of transportation facilities and services. They do not include administrative costs, DMV or highway patrol functions, enforcement or regulatory activities, education programs, or distributions to local governments.

Table 10: California Revenue Sources Authorized by State Constitution or Statute in Current Use

State-Level Revenue Sources	Eligible Transportation Activities						
	Roads and Bridges	Public Transit	Rail	Airports and aviation	Ports and Waterways	Pedestrian and bicycle projects	Other
Fuel Taxes: gasoline and diesel , excise taxes (fixed rate)	X	X	X (Passenger only)				
Fuel taxes: gasoline, excise taxes (variable rate-percentage of price)	X	X	X				
Fuel taxes: diesel, sales taxes		X	(Passenger only)				
Fuel taxes: alternative fuels	X	X					
Fuel taxes: aviation fuels				X			
Fuel taxes: watercraft					X		
Truck registration fees (based on gross vehicle weight)	X	X	X (Passenger only)				
Boat launch fees					X		
Off-highway motor vehicles service fees							X (off-highway motor vehicle activities)
Tolls	X						
Cap-and-Tarde Program revenues	X	X	X	X	X	X	X (traffic light synchronization)
Property leases or sales	X	X	(Passenger only)				
Interest income	X	X	X (Passenger only)			X	

Source: American Association of State Highway and Transportation Officials (AASHTO). Transportation Governance and Finance. A 50-State Review of State Legislatures and Departments of Transportation (November 2016).

Notes:

1. Authorized by state constitution or statute means that the revenue source is specifically authorized in law, not just permitted under more general authorizations or powers.
2. Eligible transportation activities include the state-level development and operation of transportation facilities and services. They do not include administrative costs, DMV or highway patrol functions, enforcement or regulatory activities, education programs, or distributions to local governments.

Nevada statute authorizes counties to levy local option fuel taxes, which may be indexed to inflation, for road and street uses.²¹ Counties may also levy sales taxes or lodging taxes for transportation purposes,²² development privilege taxes for growth-related transportation improvements,²³ local option aviation fuel taxes for airport purposes,²⁴ and for counties with populations under 100,000, vehicle privilege taxes for road and street projects.²⁵ Counties with a population of 100,000 or more must allocate a portion of their property taxes to the State Highway Fund for highway projects in that county²⁶. At Nevada Department of Transportation's request, counties with a population of 700,000 or more (currently Clark County) must issue bonds for up to \$300 million to assist with highway projects in that county. These bonds may be backed by local revenues from recreational facilities, lodging taxes, or other sources.²⁷ Road maintenance districts may levy special assessments.²⁸ Counties and cities may charge developers impact fees to pay for development-related capital improvements.²⁹

California statute authorizes counties, transit districts, and the Metropolitan Transportation Commission to levy local option fuel taxes.³⁰ Counties may also assess county sales taxes and locally implemented state sales taxes for transportation purposes.³¹ A number of transit districts or transportation authorities are authorized to levy property and sales taxes³² and some of them are authorized to operate high-occupancy toll (HOT) lanes.³³ Cities, counties, and local agencies may charge development impact fees to pay for capital improvements.³⁴

Although the existing federal and state revenue sources available in Nevada and California are important and the level of funding must be sustained and adjusted for inflation and other factors to maintain their purchasing power, it is unlikely that a significant portion of new funding to address the Tahoe funding shortfall will come from these sources. The Linking Tahoe Regional Transportation Plan (RTP) forecasts 50 percent of the projected 2017-2040 revenue will come from local sources (or \$1,025 million), with 30 percent will come from federal sources (\$595.7 million) and 20 percent from state sources (\$434.3 million).³⁵ Therefore, the most likely revenue sources to address the Tahoe funding shortfall are expected to be local.

²¹ Nev. Rev. Stat. §§373.010 et seq.

²² Nev. Rev. Stat. §377A.020 and §§244.3351 et seq.

²³ Nev. Rev. Stat. §278.710

²⁴ Nev. Rev. Stat. §365.203, §365.545, and §365.565

²⁵ Nev. Rev. Stat. §371.045

²⁶ Nev. Rev. Stat. §354.59815 and §408.235

²⁷ Nev. Rev. Stat. §244A.637

²⁸ Nev. Rev. Stat. §320.110

²⁹ Nev. Rev. Stat. §§278B.010 et seq.

³⁰ Cal. Revenue and Taxation Code §8502 and §9501; Cal. Public Utilities Code §99500

³¹ Cal. Public Utilities Code §§180000 et seq.; Cal. Government Code §§29530 et seq.

³² Cal. Public Utilities Code div. 10.

³³ Cal. Streets and Highways Code §§149.4 et seq.

³⁴ Cal. Government Code §§66000 et seq.).

³⁵ Tahoe Regional Planning Agency. Linking Tahoe: Regional Transportation Plan and Sustainable Communities Strategy. Horizon Year 2017-2040.

3.2 Local Revenue Sources Authorized in Nevada State Law

This section summarizes the most significant sources of local revenue being used to fund transportation projects in the state of Nevada. Potential revenue sources to address regional and local transportation projects, services and operations in the Lake Tahoe Region will be developed in **Task 7 Identify, Analyze and Screen Options for Additional Funding**.

3.2.1 Fuel Taxes

Under Nevada Revised Statutes (NRS) 365, the state collects a mandatory tax of 6.35 cents per gallon (CPG) on gasoline sold within the state which is then distributed to the counties.³⁶ Some of the revenue is returned to the county of origin while other portions of the revenue are allocated to the counties based upon such factors as miles of roadways and population, among others. Some portions of this take are further sub allocated to cities within each county.³⁷ In addition to the gas taxes enacted under NRS 365, NRS 373 authorizes counties in Nevada to enact additional taxes on motor vehicle fuels.³⁸ NRS 373.030 enables each county to levy an additional tax on gasoline of up to 9 CPG.³⁹

Current yield: In FY2017, the yield from the mandatory county gas taxes in Nevada was \$74.0 million and the yield from the optional county gas taxes in the state was \$104.9 million.⁴⁰

3.2.2 Local Indexed Fuel Taxes

Nevada Revised Statutes prior to 2015 allow counties within certain population criteria to index fuel taxes to recover the loss of purchasing power caused by inflation. (N.R.S. 373.066, 373.0663).

Assembly Bill (AB) 516 took effect Oct. 1, 2003 requiring all motor fuels sold in Washoe County be subjected to fuel tax inflation indexing using the Consumer Price Index (CPI). Although the Regional Transportation Commission of Washoe County (RTCWC), the primary proponent of the indexing legislation, requested that a construction oriented inflation indicator such as the Producer Price Index for Highway and Street Construction (PPI) be used to make the indexing adjustments, the Nevada legislature adopted the broader Consumer Price Index (CPI).⁴¹

Senate Bill (SB) 201 took effect Jan 1, 2010 allowing all motor fuels and special fuels delivered in Washoe County be subjected to fuel tax indexing using the Producer Price Index (PPI) instead of the previous CPI. While indexing the rates of the NRS 365 and NRS 373.030 taxes in Washoe County using the CPI helped recover the loss in purchasing power due to inflation, it was demonstrably short of mitigating all inflationary erosion for two main reasons. First, indexing using the CPI did not accurately reflect the much higher rates of

³⁶ Nevada Revised Statutes, Title 32, Chapter 365, Nevada Legislature Law Library: 2016.

³⁷ Ibid.

³⁸ Nevada Revised Statutes, Title 32, Chapter 373, Nevada Legislature Law Library: 2016

³⁹ Ibid.

⁴⁰ State of Nevada Transportation. State of Nevada Transportation Facts and Figures 2017.

⁴¹ State of Nevada. Department of Motor Vehicles (DMV). Motor Carrier Division. Fuel Tax Rate and FY19 Washoe County Indexed Taxes Changes. June 8, 2018. Available at <http://dmv.nv.com/pdfforms/mcfy19rateswashoe.pdf>

inflation that were being experienced in the construction costs of street and highway. Second, inaction by the state and federal governments to address the impacts of inflation on state and federal motor vehicle fuels, meant that the purchasing power of these taxes paid by motorists in Washoe County was also being eroded.

AB413 took effect Jan 1, 2014 allowing Clark County to start indexing all fuel types including special fuel but excluding jet and aviation fuels using the PPI for the period January 1, 2014, through December 31, 2016.⁴²

AB191 signed by the governor in 2015, required counties to include a question for the voters in the November 8, 2016 ballot on fuel tax indexing for the period beginning January 1, 2017 and ending December 31, 2026.⁴³ In 2026 another ballot question will be required that will ask county voters whether they would like the annual increases to continue. The fuel tax indexing question will be a county by county question (it can pass in one county but not another).⁴⁴ Only Clark County voters voted in favor.⁴⁵

Both Clark and Washoe Counties indexing are based on passage of advisory questions and subsequent legislation.⁴⁶

Collections of the PPI indexed fuel taxes began on January 1, 2010, and the local governments and the RTC of Washoe County received the first proceeds in March 2010.

Current yield: In FY 2017, the yield from the indexed fuel taxes in Washoe County was \$48.8 million and the yield from these taxes in Clark County was \$80.6 million.⁴⁷

The total revenue from indexed fuel taxes distributed to the RTC of Washoe County including CPI from inception to December 2017 is estimated at \$302.5 million.⁴⁸ This amount along with other fuel tax revenues has been used for project implementation and as the pledged revenue for debt service for four revenue bond sales totaling \$435 million that were implemented to fund road projects. Indexed fuel tax revenues serve as the main instrument for repayment of the debt service. As of August 2016, all the proceeds from the revenue bond sales have been expended and the RTC of Washoe County is back to primarily funding road projects with indexed fuel tax revenues.

⁴² Guinn Center. Fact Sheet: Clark County-5 Fuel Revenue Indexing. September 2016. Available at https://guinncenter.org/wp-content/uploads/2014/01/Guinn-Center_FRI-Fact-Sheet-2016.pdf. Accessed Nov 13, 2018.

⁴³ Nevada Association of Counties. 2016 Nevada Economic Development Conference. Fuel Tax Indexing.

⁴⁴ Ibid.

⁴⁵ State of Nevada Transportation. Facts and Figures 2017.

⁴⁶ Nevada Association of Counties. 2016 Nevada Economic Development Conference. Fuel Tax Indexing.

⁴⁷ State of Nevada Transportation. State of Nevada Transportation Facts and Figures 2017.

⁴⁸ Regional Transportation Commission (RTC), Metropolitan Planning Organization of Washoe County, Nevada. Report Regaining Indexed Fuel Taxes. April 20, 2018.

3.2.3 Sales & Use Taxes

The Nevada Department of Revenue administers the local sales and use taxes.⁴⁹ Sales tax is measured by the gross receipts from retail sales, while use tax is measured by the sales price of the property.⁵⁰ Sales and use taxes are levied by the state and local governments for both general and specific uses. Although sales and use tax revenues have not been used historically by the state to fund transportation, they are the largest single revenue source for the state and these taxes have the significant potential for additional revenue generation.

The combined minimum rate of sales taxes across Nevada is 6.85 percent and consists of the following four components: 2 percent for the state’s general fund, 2.6 percent for school districts, 0.5 percent for basic city–county tax relief, and 1.75 percent for supplementary city–county tax relief.⁵¹ Depending on local municipalities, the total tax rate can be as high as 8.265 percent.

Counties may also levy optional sales and use taxes for a range of purposes prescribed by statute. As of January 1, 2017, the following counties impose the respective optional sales tax: 1.30 percent tax in Clark county; 0.875 percent tax in Washoe and White Pine Counties; 0.75 percent tax in Carson City, Churchill, Nye, and Storey Counties; and 0.25 percent tax in Douglas, Elko, Lander, Lincoln, Lyon, and Pershing Counties.⁵² NRS 377A enables all counties to impose a 0.5 percent sales and use tax to fund public transit and/or roads.⁵³ For instance, Washoe and Clark counties have imposed sales and use taxes under 377A at the rates of 0.375 percent and 0.5 percent, respectively. In addition, Washoe County was enabled by the legislature and did approve a 0.125 percent sale and use tax to fund the railroad grade separation of the UPRR mainline through downtown Reno. A breakdown of the county optional sales tax rates imposed by Nevada counties, including their purposes and amounts collected in fiscal years 2016 and 2017, is provided in **Table 11**.

Table 11: County Optional Sales Taxes Collected In Nevada, FY 2015 and FY 2016

County	Purpose	Tax Rate	FY2015	FY 2016	Change (%)
Carson City	Open Space	0.25%	\$2,190,782	\$2,363,277	7.9%
Carson City	Road Repair	0.25%	\$2,190,778	\$2,363,332	7.9%
Carson City	V&T Railroad	0.125%	\$1,095,148	\$1,181,643	7.9%
Carson City	Infrastructure Improvements	0.125%	\$821,866	\$1,176,414	43.1%
Churchill	Local Government Tax Act	0.25%	\$620,633	\$665,110	7.2%
Churchill	Road Repair	0.25%	\$620,650	\$665,093	7.2%
Churchill	Infrastructure Improvements	0.25%	\$620,639	\$665,084	7.2%
Clark	Flood Control	0.25%	\$91,030,101	\$94,473,117	3.8%
Clark	Mass Transit/Air Quality	0.50%	\$182,069,982	\$188,924,093	3.8%

⁴⁹ NEV. REV. STAT. § 360B.120(1)(e).

⁵⁰ Nevada Department of Taxation, Sales & Use Tax General Information. Available at https://tax.nv.gov/Publications/Sales_and_Use_Tax_Publications/. Accessed Nov 12, 2018.

⁵¹ Nevada Department of Taxation, Components of Sales and Use Tax Rates. Available at https://tax.nv.gov/Publications/Sales_and_Use_Tax_Publications/. Accessed Nov 12, 2018.

⁵² Revenue Reference Manual, Fiscal Analysis Division, January 2017.

⁵³ NSR. 2016. Nevada Revised Statutes, Title 32, Chapter 377A, Nevada Legislature Law Library: 2016.

County	Purpose	Tax Rate	FY2015	FY 2016	Change (%)
Clark	Southern Nevada Water Authority	0.25%	\$91,023,954	\$94,458,852	3.8%
Clark County	Police Support	0.003	\$91,050,238	\$103,810,700	14.0%
Clark	Crime Prevention Act	0.10%	NC	NC	NA
Douglas	Tax Ordinance	0.25%	\$1,614,104	\$1,633,836	1.2%
Elko	Infrastructure	0.25%	NC	NC	NA
Lander	Water Treatment	0.25%	\$663,478	\$672,936	1.4%
Lincoln	School/Public Utilities	0.25%	\$70,557	\$69,152	-2.0%
Lyon	Public Safety/Infrastructure	0.25%	\$895,880	\$943,962	5.4%
Nye	Public Safety	0.50%	\$2,429,141	\$2,631,487	8.3%
Nye	Road Repair	0.25%	\$1,222,394	\$1,315,089	7.6%
Pershing	Public Safety/Infrastructure	0.25%	\$200,999	\$221,211	10.1%
Storey	Railway	0.25%	\$282,829	\$285,039	0.8%
Storey	Tourism	0.25%	\$282,829	\$284,830	0.7%
Storey	School/Public Utilities	0.25%	\$282,829	\$285,039	0.8%
Washoe	Flood/Public Safety	0.125%	\$8,227,877	\$8,864,540	7.7%
Washoe	Local Government Tax Act	0.25%	\$16,455,711	\$17,728,891	7.7%
Washoe	Mass Transit	0.375%	\$24,684,442	\$26,593,615	7.7%
Washoe	Railroad Grade Project	0.125%	\$8,227,820	\$8,864,540	7.7%
Washoe	School Infrastructure	0.54%			
White Pine	Road Repair	0.25%	\$663,702	\$541,719	-18.4%
White Pine	School Capital Improvements	0.125%	\$331,854	\$270,862	-18.4%
White Pine	Infrastructure Improvements	0.25%	\$663,530	\$541,545	-18.4%
White Pine	Swimming Pool/Rec. Facility	0.25%	\$664,295	\$541,535	-18.5%
N/A	All Other Collections		\$107	\$175	63.6%
	Total Collections		\$531,199,149	\$563,036,718	

Source: Revenue Reference Manual, Fiscal Analysis Division, January 2017.

Note: NC = Not Collected. NA = Not Applicable.

Current yield: In FY2017, state and local business sale taxes in Nevada yielded about \$2.5 billion in revenue.⁵⁴ In FY 2016, county optional sales taxes collected in Nevada accounted for \$563 million, an increase of 6 percent compared to the previous fiscal year.

3.2.4 Property Taxes

Property taxes are the primary source of general fund revenues for Nevada's local governments. Although property taxes do not currently contribute a significant amount of transportation revenue in Nevada general fund revenues have been used for transportation investments by a number of local governments establishing

⁵⁴ Total State and Local Business Taxes. State-by-State Estimates for Fiscal Year 2017. November 2018. Available at <https://www.cost.org/globalassets/cost/state-tax-resources-pdf-pages/cost-studies-articles-reports/FY16-State-And-Local-Business-Tax-Burden-Study.pdf.pdf>. Accessed Nov 13, 2018.

a precedent. Furthermore, property taxes are capable of generating significant amounts of revenue and are, in fact, the single largest source of revenue for most general purpose local government entities in Nevada.

Nevada's constitution caps the total property tax rate at \$5 per \$100 of valuation. In 1979, the Nevada Legislature further limits the total property tax rate to \$3.64 per \$100 of valuation. In 2003, the Legislature passed SB 507 which authorized an additional 2 cents for capital projects and conservation of natural resources.⁵⁵ The 2 cents is outside the tax rate limit, so that a total of \$3.66 per \$100 of assessed value may actually be assessed. There are, however, many exceptions including increments of property tax that are outside of the \$3.64 cap, a significant number of whole or partial abatements, and percentage caps on how much tax bills on real property may increase year to year.⁵⁶ For example, Assembly Bill 489 established a partial abatement such that the property tax bill cannot increase by more than 3 percent over the prior year's tax levy for owners of single-family residences that are the primary residence of the owner.⁵⁷ Assembly Bill 489 also established a partial abatement on the property taxes levied upon residential rental dwellings that qualify as low-income housing under the standards of the U.S. Department of Housing and Urban Development (HUD), such that the property tax bill on these dwellings cannot increase by more than 3 percent over the prior year's tax levy.⁵⁸

Pursuant to NRS 354.59811, the revenue a local government entity receives from property taxes is allowed to be increased by a maximum of 6 percent per year.

Current yield: In FY2017, state and local business property taxes in Nevada yielded about \$1.5 billion in revenue.⁵⁹

3.2.5 Impact Fees for New Development

Local governments, either municipalities or counties, in Nevada are authorized to implement impact fees for new development per NRS 278B. The impact fees can be used to finance the costs of new infrastructure, a capital improvement, or a facility expansion necessitated and attributable to the new development. Impact fees are a one-time contribution towards road capacity and cannot be spent on operations, maintenance or reconstruction of the infrastructure. A local government may charge an impact fee to cover the costs associated with the provision of eight separate and defined capital improvement needs, including: a drainage project, a fire station project, a park project, a police station project, a sanitary sewer project, a storm sewer project, a street project, or a water project.⁶⁰

Transportation impact fees have been implemented in the urbanized area of Washoe County (including Reno and Sparks), and several cities in southern Nevada. The Regional Transportation Commission of Washoe County (RTC) administered the Regional Road Impact Fee (RRIF) program, a special revenue fund for road projects funded with impact fees. The fees consist of two components, cash impact fees and impact fee

⁵⁵ Nevada Department of Taxation. Division of Local Government Service. Nevada Property Tax: Elements and Application. Updated November 10, 2016.

⁵⁶ NTA 2013. "Nevada Tax Facts", Nevada Taxpayers Association: 2013.

⁵⁷ Revenue Reference Manual, Fiscal Analysis Division, January 2017.

⁵⁸ Revenue Reference Manual, Fiscal Analysis Division, January 2017.

⁵⁹ Total State and Local Business Taxes. State-by-State Estimates for Fiscal Year 2017. November 2018. Available at <https://www.cost.org/globalassets/cost/state-tax-resources-pdf-pages/cost-studies-articles-reports/FY16-State-And-Local-Business-Tax-Burden-Study.pdf.pdf>. Accessed Nov 13, 2018.

⁶⁰ NRS Chapter 278B

credits.⁶¹ Credits are given to developers for the construction of major arterial roads during development. Credits are booked as a revenue and expenditure with a net zero effect on the financial statements, therefore, they are not included in analysis of fund balance. Since 1995, the Regional Road Impact Fee (RRIF) Program has constructed regional improvements in the form of new roads, road widening and intersection improvements totaling \$276 million.⁶² Clark County also used impact fees to help fund a beltway around Las Vegas.⁶³

Current Yield: Impact fee revenues tend to mirror economic activity so revenues may vary considerably on a year-to-year basis. For example, the Regional Road Impact Fee (RRIF) administered by the RTCWC collected about \$2.7 million in FY2016⁶⁴ whereas revenues in FY2006, prior to the great recession, were about \$29 million.⁶⁵

Impact Fees have little potential to provide transportation revenue given that very limited growth is expected within the Tahoe Basin over the next 20 years. In addition, very little new capacity will be added to the roadway system, given the environmental and geographical constraints in the Tahoe Basin. Impact Fees that can be utilized to build public transit facilities would

3.2.6 Improvement Districts

NRS 271 authorizes cities and counties to create improvement districts to undertake various types of improvements, including street projects. Owners of properties within such districts are assessed for the cost of the improvements in proportion to the benefits they receive. As an alternative, owners representing more than 90 percent of the property that would be included in a proposed improvement district may petition the municipality for the creation of an improvement district. As a practical matter, the improvement district mechanism allows the construction of street improvements by a municipality with the cost being financed and the debt serviced by the assessments collected from the benefitting properties. This mechanism could be used for constructing such public improvements as new interchanges, by-passes, grade separations, and access roads serving commercial, industrial or recreational development. There is no limit on the size of these districts or on the size of the projects undertaken although the municipality does reserve the right to not undertake such improvement districts if it determines this in the public interest.⁶⁶

Nevada Revised Statutes Chapter 271A, known as the Tourism Improvement District Law established by the approval of S.B. 306 by the 2005 Legislature. Nevada Revised Statutes 271A.070, establishes the provisions for the creation of a Tourism Improvement District (TID) and the pledge of sales tax revenues to develop a project in the TID. A municipality may create a TID and define by ordinance the boundaries of the district and describe the types of projects that may be financed within the TID. The municipality may, without election, acquire, improve, equip, operate, and maintain a project within the TID established by ordinance and the

⁶¹ Regional Transportation Commission of Washoe County (RTC). Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2016. Regional Transportation Commission Reno, Sparks and Washoe County, Nevada.

⁶² Regional Transportation Commission of Washoe County (RTC). Regional Road Impact Fee Program. Available at <https://www.rtcwashoe.com/engineering-fees/regional-road-impact-fee/>. Accessed Nov 14, 2018.

⁶³ A Quiet Revolution in Transportation Finance: The Rise of Local Option Transportation Taxes. *Transportation Quarterly*, Vol. 57, No.1, Winter 2003 (19–32).

⁶⁴ Regional Transportation Commission of Washoe County (RTC). Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2016. Regional Transportation Commission Reno, Sparks and Washoe County, Nevada.

⁶⁵ Regional Transportation Commission of Washoe County (RTC). Comprehensive Annual Financial Report Fiscal Year Ended June 30, 2007. Regional Transportation Commission Reno, Sparks and Washoe County, Nevada.

⁶⁶ Nevada Revised Statutes, Title 32, Chapter 271.

project may be owned by the municipality, another governmental entity, any other person, or any combination thereof.

Current yield: An estimate of current yield from improvement districts is not available. The yield would be the sum of such districts currently established that are constructing transportation improvements.

3.2.7 Road Utility

In Nevada, a road utility can be established as a General Improvement District under NRS 318.⁶⁷ The primary purpose of a General Improvement District is to provide local county and municipal governments in Nevada a financing tool with enough flexibility and capability to finance a variety of infrastructure projects designed to stimulate private sector investment.⁶⁸ The local authorizing government legislative body (a county commission or city council) is responsible for the creation of the General Improvement District and a designated authority (a department or division of the county or municipality, a non-profit organization, an entity other than the county or municipality) to administer and manage the General Improvement District. In concept, road utilities are created in specific geographic areas to build and maintain roadway infrastructure. This is somewhat different from the improvement district where improvements are constructed and then subsequently maintained and operated by a local government as part of ongoing governmental services.

Nevada has a significant number of General Improvement Districts established (**Table 12**) that are providing one or more of the twenty-one services allowed by statute. Such districts may collect ad valorem (property tax) revenues, assessed at a rate that is above the state constitutionally set cap of \$3.64 per \$100.00 of assessed value, and issue debt for a wide range of projects ranging from the development and maintenance streets, alleys, curbs, gutters, sidewalks, swimming pools and cemeteries to the supplying of fencing, facilities needs for the protection from fire, and the control and eradication of noxious weeds. A General Improvement District may also use tolls and charges for services as a mechanism to finance the administration, operations, and maintenance of these programs and projects.⁶⁹ A road utility could be an appropriate mechanism for raising revenue for constructing and maintaining roadways in a large industrial park or a similar facility located outside of an incorporated area.

Table 12: Number and Total Value of Local General Improvement Districts Active in Nevada, FY 2016-17

County	Number of Active General Improvement Districts	Total Assessed Value of Active General Improvement District (in Millions of USD)
Douglas	15	\$991.3
Eureka	1	\$3.1
Humboldt	1	\$6.2
Lincoln	2	\$20.1
Lyon	3	\$50.2
Mineral	1	\$6.9
Nye	1	\$12.1
Storey	2	\$293.5
Washoe	4	\$1,601.5

⁶⁷ Nevada Revised Statutes, Title 32, Chapter 318.

⁶⁸ Nevada Revised Statutes, Title 32, Chapter 318.

⁶⁹ Nevada Revised Statutes, Title 32, Chapter 318.

County	Number of Active General Improvement Districts	Total Assessed Value of Active General Improvement District (in Millions of USD)
Total	30	\$2,985.0

Source: Nevada Department of Taxation, Division of Local Government Services, Property Tax Rates for Nevada Local Governments Fiscal Year 2016-2017 (REDBOOK)

Current yield: An estimate of current yield from of General Improvement Districts functioning as Road Utilities constructing, operating, and maintaining roads is not available. The yield would be the sum of such districts currently undertaking this function.

3.2.8 Supplemental Governmental Services Tax

The basic Governmental Service Tax rate is 4 cents on each dollar of the valuation of the vehicle. The Supplemental Governmental Services Tax, enacted by Nevada Legislature in 1991, is an additional tax levied annually based upon the depreciated value of the vehicle and collected with vehicle registration fees.⁷⁰ The current rate is a maximum of 1 cent per each dollar of vehicle valuation. The proceeds of the Supplemental Governmental Services Tax are collected by the Department of Motor Vehicles (DMV) and returned to the counties to be used for the construction and maintenance of transportation projects or expenditures related to governmental functions of the county.⁷¹ Currently, Clark, Churchill and White Pine counties are the only counties in the state levying the additional supplemental rate.⁷²

3.2.9 Other Taxes

Certain localities in Nevada may impose (1) 0.25 percent tax to promote tourism for counties with a population under seven hundred thousand; (2) 0.25 percent tax to support the operation and maintenance of a county swimming pool and recreational facility for counties with a population under fifteen thousand; or (4) a 0.25 percent tax to acquire, develop, construct, equip, operate, maintain, improve, and manage parks, and recreational facilities and programs.⁷³

3.3 Constrained Local Revenue Sources in the Linking Tahoe Regional Transportation Plan

The Linking Tahoe Regional Transportation Plan (RTP) addresses needs in the 2017 to 2040 timeframe.⁷⁴ The RTP includes a funded and unfunded project list over the 2017-2040 period. An estimated \$2 billion in

⁷⁰ Nevada Revenue Reference Manual, Fiscal Analysis Division, January 2017.

⁷¹ Assembly Bill 543.

⁷² State of Nevada Transportation. State of Nevada Transportation Facts and Figures 2017.

⁷³ Afonso, W.B. Local sales tax laws: State by State Details. Comprehensive overview of state local sales tax laws.

⁷⁴ Tahoe Regional Planning Agency. Linking Tahoe: Regional Transportation Plan and Sustainable Communities Strategy. Horizon Year 2017-2040.

revenue is anticipated over the life of the plan.⁷⁵ The funding sources that support the constrained project list forecasts 50 percent of the projected revenue will come from local sources, 30 percent will come from federal sources and the remaining 20 percent will come from state sources.⁷⁶ Even achieving the \$2 billion revenue estimate will be challenging because it assumes major new local funding sources will be implemented in the near term and the continuation of existing funding sources at the local, state, and federal levels. **Table 13** shows the constrained local revenue sources identified in the plan. TTD has estimated that new local revenue sources are needed during the RTP timeframe just to meet the constrained scenario revenue estimate.

Further, the Linking Tahoe RTP has both a Constrained and Unconstrained project list that will need to be implemented to achieve the vision for Lake Tahoe. Analyzing the Linking Tahoe RTP in 2017\$, and making appropriate adjustments in both needed projects and expected revenues, the funding shortfall between 2017 and 2040 is estimated at \$1.53 billion in 2017\$.

Table 13: Constrained Local Revenue Sources Identified in the Linking Tahoe Regional Transportation Plan

Funding Source	Description	Source
Farebox Revenues	Revenues collected by transit operators from passenger fees.	TART Short Range Transit Plan and South Shore transit actuals for 2015
TRPA Rental Car Mitigation Fund	Cars rented in the Region are assessed a mitigation fee of \$5.50 per day. This fee is used for transit operations. Mitigation fees found in the Rules of Procedure Section 10.8.5.	TRPA: Average of past four years
TRPA Air Quality Mitigation Fund	This fee offsets impacts from indirect sources of air pollution in the Basin. The current program charges \$325.84 per daily vehicle trip for new tourist accommodations units or for new campground site or recreational site.	TRPA: Average of past four years
TRPA Water Quality Mitigation Fund	This fee is assessed for each square foot of additional land coverage created. The current fee is \$1.86 per square foot.	TRPA: Average of past four years
Local Funds (On-Going)	Funds that local jurisdictions generate and use towards transportation capital and operations.	Placer County Traffic Impact Fees, North Lake Tahoe Resort Association Transient Occupancy Tax, City of South Lake Tahoe, Tahoe Douglas Transportation District Transient Occupancy Tax, PUDs, GIDs, and others, Transit local funds

⁷⁵ Ibid.

⁷⁶ Ibid.

Funding Source	Description	Source
Local Funds (Project Specific)	Funds that local jurisdictions generate and use towards transportation capital.	Placer County, Tahoe City Public Utility District, Nevada Department of Transportation, City of South Lake Tahoe
Private Funds	Private funding consists of revenue from South Shore Transit operations, skier shuttles, the Tahoe Fund, and mitigation fees from large projects in the Region.	South Shore Transit, Tahoe Fund, Mitigation Fees from large projects
Ferry Partnership	Public and private funds to operate waterborne transit.	Tahoe Transportation District
Operations and Maintenance	Estimates of funding expenditures to maintain active transportation facilities, roadways, and stormwater in the Region. This amount is adjusted to match the costs reported by local jurisdictions.	Jurisdiction consultation and confirmation through Environmental Improvement Program Tracker.
Environmental Stormwater Capital	Funding for Environmental Improvement Program projects in the Region from 2017 - 2019. This amount is adjusted to match the costs reported by local jurisdictions.	Jurisdiction consultation and confirmation through Environmental Improvement Program Tracker.

Source: Tahoe Regional Planning Agency. Linking Tahoe: Regional Transportation Plan and Sustainable Communities Strategy. Horizon Year 2017-2040, Appendix B, page B-20.

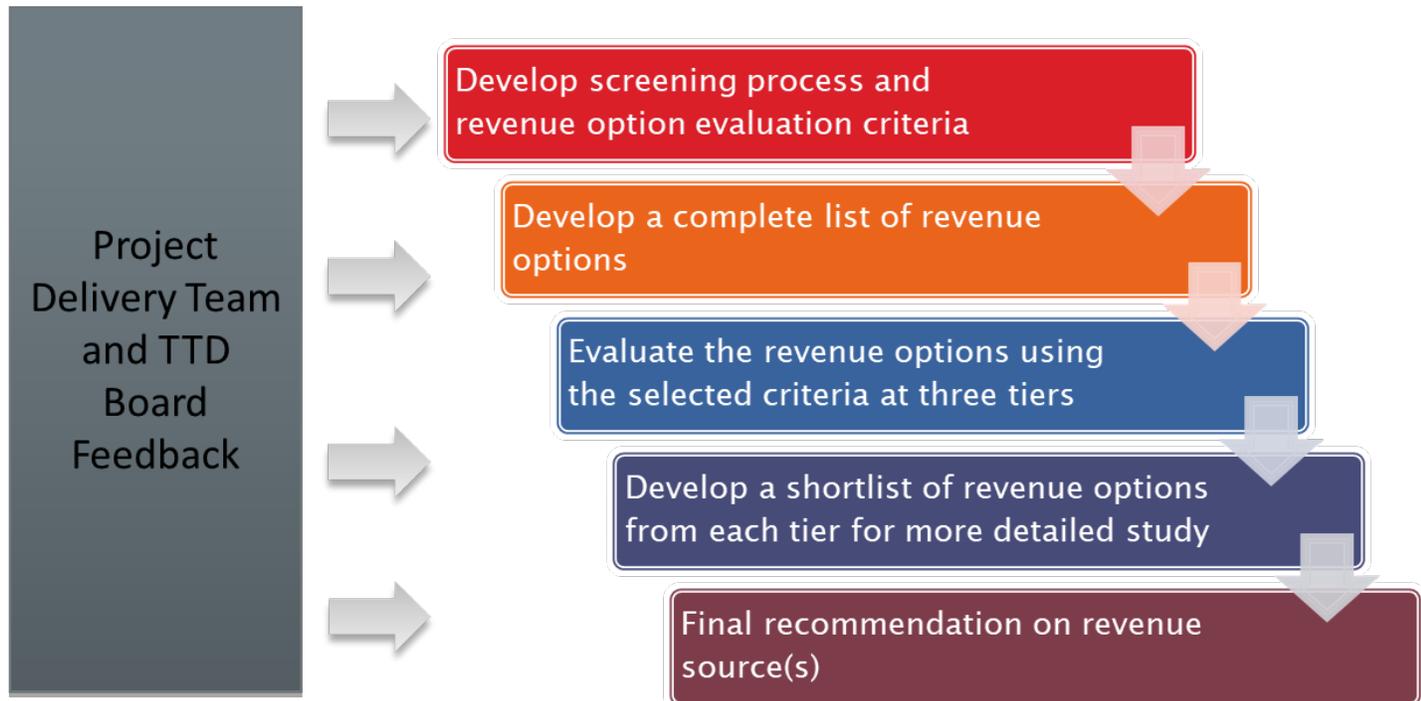
Since a large portion of the funding shortfall in the RTP will be in transit operations and capital improvements, it is important to recognize the modal limitations of existing and future funding sources (i.e., gas taxes that cannot be expended on transit). The importance of modal flexibility for transportation revenues is critical and therefore, will be analyzed in **Task 7 Identify, Analyze and Screen Options for Additional Funding**. In addition, new funding sources should be flexible in terms of where funds can be expended; ideally, the Tahoe Basin should be considered as a single jurisdiction with funds collected in the Basin eligible for expenditure throughout the Basin.

4.0 Proposed Approach

The proposed approach to develop and assess potential revenue and financing options that can help to both fill the transportation funding gap for the Tahoe Basin and the Resort Triangle and advance the transportation vision for the Lake Tahoe Region includes:

- Developing screening process and revenue option evaluation criteria;
- Developing a complete list of potential revenue options for evaluation (merging those that are very similar or have slight variations);
- Evaluating the revenue options using the selected criteria; and
- Developing a shortlist of revenue options for more detailed study.

The proposed approach will be reviewed and ultimately approved by the TTD Project Delivery Team and TTD Board prior to developing and evaluating the funding strategies for the Lake Tahoe region.



4.1 Revenue Evaluation Criteria and Rating Ranges

There are many different methods to increase transportation funding, but only certain funding strategies will meet the specific needs of the Lake Tahoe region and have the highest probability of success. When considering potential revenue sources for transportation, there are common criteria that are employed to evaluate advantages and disadvantages of each source. These criteria can be used as a guide when determining the feasibility of the revenue sources for application to the transportation needs and improvements in the Lake Tahoe Region:

- **Constitutional Amendments/Statewide Vote** - If a proposed funding mechanism would require an amendment to the CA or NV constitutions, or a statewide vote of the people in either state, this is considered a fatal flaw. The ability to accomplish either of these is considered beyond the reasonable capability of the TTD and its partners.
- **Revenue Adequacy and Predictability** – This criterion refers to both the overall magnitude of funds or yield a funding source is capable of generating and to how reliable this yield is predicted to be over time.
 - **Revenue Adequacy** – Strategies are given a “high” rating if they are capable of producing large amounts of revenue assuming reasonable fee/tax rates. In particular, fuel taxes have been the mainstay of transportation revenues for decades, receiving generally a “high” rating related to yield. Sources or strategies are given a “low” rating if the strategies are inherently short-term or low-yield. For example, a revenue source like transportation impact fees used to recover the costs incurred for the expansion of the transportation network necessary to serve demands generated by new development would rank “low” in adequacy, given its narrow tax base, the limited new growth, and the fact that it is a onetime charge.
 - **Revenue Predictability** – A funding strategy with a “high” rating produces revenues that are predictably sustained over time, whereas a “low” rating refers to funding sources whose revenue generation potential over time is more uncertain. For example, motor fuel taxes may not be reliable over time because, if not indexed, the revenue degrades with both inflation and lower consumption as vehicles become more fuel efficient. If they are indexed, the inflation impact is removed, and revenues are only impacted by lower demand.
- **Economic Efficiency** – This criterion refers to the extent that a strategy provides clear pricing signals that encourage users and providers to minimize unproductive travel and maximize economic growth. Therefore, strategies with “high” economic efficiency are those that help to make the marginal prices of goods and services reflect their true costs. Strategies with “low” economic efficiency are those that distort the market by collecting fees that are unrelated to the services they help fund. For example, hotel/lodging taxes would be considered “low” in economic efficiency, as these are not directly related to transportation and would not send direct signals of efficient use of the transportation network. A robust measure of economic efficiency includes the full network effects that are gained from completing a single segment of roadway.
- **Equity** – This criterion refers to the extent that each strategy places inequitable burdens on different groups of people financially, or unfairly restricts access to basic transportation services. Excise and sales taxes and user fees are all regressive, since they require those with lower incomes to expend a disproportionately higher share of their incomes to pay the tax or fee. The only funding strategies that are likely to receive a “high” rating are those that levy different fees *based on income levels*, including income or payroll taxes, property taxes, and vehicle personal property.

- **Share of Tax Paid by Out-of-basin versus In-basin Residents and Businesses** – The Lake Tahoe Region is an area of regional and statewide significance serving both interstate and intrastate travel. Tahoe experiences a high percentage of visitor use from adjacent urban centers in California and Nevada, in part, as a result of Lake Tahoe’s central location in the Northern California Megapolitan, a basin of growing metropolitan areas that extends from San Francisco Bay area to Reno, Nevada. More than 14 million people live in the Northern California Megapolitan and many of them drive to Lake Tahoe to enjoy its world-class recreation opportunities. Overnight and day use visitors can exceed the Basin’s capacity with the peak visitation in summer and winter, putting significant pressures on the transportation system, which consists primarily of six two-lane roadways leading into Tahoe and a bi-state 2 lane highway that loops around the Lake, thus contributing to some of the region’s largest water quality, air quality, and emergency management challenges. This criterion considers the potential to share the tax burden with out-of-basin residents/businesses, or if the tax burden is carried by Tahoe residents and businesses. Tolling would be rated “high” because out-of-basin travelers would pay their share for using the roadways, whereas property taxes would be rated “low” because the tax is paid by residents and businesses where the additional property tax is imposed to pay for the project.
- **Supports Attaining Environmental Thresholds** – The Tahoe Regional Planning Agency (TRPA) operates at a regional level under the authority of the Bi-State Compact (Public Law 96-551) between the states of California and Nevada.⁷⁷ The Bi-State Compact states that the TRPA’s Regional Plan shall promote walking, biking, public transit use, and environmental innovation technologies can help preserve a healthy environment. Specifically, the plan shall (a) reduce private vehicles dependency by making more effective use of existing transportation modes and public transit to move people and goods within the Region and (b) to the extent possible, reduce the air pollution that is caused by motor vehicles.⁷⁸ The Bi-State Compact requires TRPA establish environmental threshold that measure the Region’s performance in the areas of air quality, water quality, soil conservation, vegetation, noise, recreation, scenic resources, fisheries, and wildlife. This criterion measures the degree to which a given revenue mechanism help achieve TRPA established thresholds. Some revenue mechanisms discourage behavior that causes harmful side effects such as congestion or air pollution. A congestion charge, for example, discourages travel at times and places where congestion may occur and as a result, may contribute to improve air quality. In contrast, other revenue mechanisms simply generate revenue, for example, an income tax.
- **Business Climate Friendliness** - Business climate friendliness is the way the business community will perceive a given mechanism. As with the Political Feasibility/Public Acceptability criterion, very few (if any) taxes are popular with businesses since they reduce profits. Given this general opposition to taxes, this criterion focuses on the degree of difficulty that might be encountered in gaining acceptance among Tahoe business community to initially implement the revenue mechanism, compared to other revenue options. The business community in particular disfavors taxes that are burdensome or complicated to comply with or that substantially increase the costs of doing business (especially if they target one business more than its competitors). Of course, there will be variability among the views of specific industrial sectors. For example, the automotive industry is likely to oppose burdensome taxes on auto purchases, while the retail industry is likely to oppose sales taxes. This criterion will consider the business community as a *whole*.

⁷⁷ Tahoe Regional Planning Agency. Linking Tahoe: Regional Transportation Plan and Sustainable Communities Strategy, Horizon Year 2017-2040.

⁷⁸ Ibid.

- **Revenue Potential** – This criterion measures the ability of the funding mechanisms to generate the needed revenue during the life of the TRPA’s Regional Plan. Task 2 has estimated that new local and regional sources will be needed to generate \$1.53 billion so that the fully envisioned TRPA’s Regional Plan addressing all needs in the region can be implemented over the 23-year forecast period. For each revenue mechanism, this criterion will estimate the funding to be generated over the life of the TRPA’s Regional Plan. Revenue mechanisms will be categorized as low, medium or high if they have the potential to generate low, medium or high gross revenues, over the life of the TRP.
- **Administrative Effectiveness** – This criterion refers to the cost and ease of administering each fee or tax system; that is, minimizing evasion and minimizing the logistical difficulties imposed on the public in the process of paying the fee or tax in a cost-effective way. The easiest fee-collection systems, designated as having “high” administrative effectiveness are those that piggyback on other payments at the point of sale, including fuel taxes and sales taxes. Strategies are designated as “medium” if they require the user to make a unique payment solely for the purpose of paying fees or taxes, but where this process has been reasonably streamlined. New funding sources or those with high administrative costs are designated as “low.”
- **Political Feasibility/Public Acceptance** - Because all of the funding sources require the public to pay more, it is likely that they will all have some public opposition. Funding sources that are somewhat removed from the transportation project or service they are supporting tend to be particularly unpopular, such as property and income taxes and general revenue. This criterion measures the degree of difficulty that might be encountered in gaining public acceptance to initially implement the revenue mechanism, compared to other revenue options. Public acceptance of revenue mechanisms may improve over time as individuals become more accustomed to the means of collection and how the mechanism impacts their finances, travel patterns, or other activities. Therefore, the acceptability of a new mechanism is measured comparatively, recognizing that some methods will initially be more acceptable than others. This measure will be largely informed through stakeholder input.
- **Fungibility Across Modes and Jurisdictions in Tahoe Basin**-The fact that funding shortfalls are identified for all of the major travel modes and other priority needs requires that any new funding mechanism not be limited to a single mode and ideally would be fungible across all modes of travel and priority needs. In addition, given the many jurisdictions within the Tahoe Basin, it will be critical that any new funding mechanism have the ability to fund projects and services across the entire Tahoe Basin and not be limited to use within the jurisdiction of collection.
- **Impacts to the Regional Economy** - Money collected through a revenue mechanism is no longer available to the tax/fee payer for other purposes such as investment, saving, or spending. This could be a deterrent to tax/fee payers to visit Lake Tahoe. These impacts could, however, be offset by increased spending on transportation projects and services which can stimulate the regional economy. Improvements to the transportation system may also improve the quality-of-experience for visitors and quality-of-life for residents, thus stimulating additional spending in the region.

Table 14 defines the proposed rating ranges for the evaluation criteria. For each potential revenue sources and each criterion, the following scores will be assigned to each rating:

- A rating of low will score 1 point which means that the potential source has a low probability of meeting the screening criteria

- A rating of medium will score 2 points which means that the potential source has a moderate probability of meeting the screening criteria
- A rating of high will score 3 points which means that the potential alternative has a strong probability of meeting the screening criteria

The sum of the scores in the tier 1 (tier 2 and tier 3) criteria will determine the overall rating and ranking of each potential revenue source. It is likely that not all of the identified criteria will be of equal importance in assessing the suitability of proposed funding mechanisms and will thus need to be weighted. Proposed weightings were discussed with the Project Delivery Team on 3 Dec 2018 and presented to the TTD Board on 14 Dec 2018. The TTD Board approved the proposed weightings with one change as noted below in Table 15.

Table 14: Rating Definition for Revenue Evaluation Criteria (Draft)

Criterion	Low	Medium	High
Constitutional Amendment/State wide Vote	If any of these actions is required, mechanism is considered fatally flawed and eliminated from further consideration.		If none of these actions is required, mechanism is considered viable in this regard and will be eligible for further consideration.
Adequacy	Revenue streams are low and may not provide sufficient funding to support a project or program, or can only be implemented over the short term, or do not provide modal flexibility. It may also have flat or negative future growth. Examples: Transportation impact fees	Revenue streams are significant and predicted to grow, although it may be at slower rate than transportation demand or do not provide modal flexibility. Levies may partially support a project or program, and could be leveraged through finance. Examples: Hotel/lodging taxes, motor fuel gas taxes that cannot expended to fund transit projects	Revenue streams sufficient that will grow with transportation demand and can be used to fund transit operations and capital improvements. Levies can support a project and program over the long term. Example: Motor fuel taxes.
Predictability	Revenue fluctuations are uncertain and highly volatile, making it difficult to predict future revenue streams. Fluctuations in revenues are highly variable year-to-year, and specific factors affecting stability cannot be identified. Example: motor fuel taxes not indexed to inflation.	Revenue fluctuations are generally consistent over time or more predictable, and the factors affecting stability are generally known, such as economic downturns. Example: motor fuel taxes indexed to inflation but affected by lower travel demand.	Revenue streams are highly predictable, with a long history of receipts for which trends can be easily identified. Fluctuations in revenues are low or nonexistent.
Economic Efficiency	The revenue source and the use of the system are unrelated, thus it does not provide clear pricing signals, leading to inefficient use of the system. Example: Property taxes.	The revenue source and the use of the system are indirectly related, yet pricing signals are not clear and users are not encourage to make efficient use of the system. Example: Rental car taxes.	There is a strong relationship between the revenue source and the use of the system, sending clear pricing signals, and encouraging the efficient use of the system. The revenue option reflects the true cost of using the system. Example: tolls

Criterion	Low	Medium	High
Equity	Low-income populations have to spend a higher share of their income to pay the tax or fee compared to other groups, or are unfairly restricted from using basic transportation services. Example: Sales taxes	The burden on low-income populations is lower, but they still spend a higher share of their income to pay the tax and fee compared to other groups. Example: Real property tax	The tax or fee is based on income levels. Example: Income taxes
Share of tax paid by out-of-basin residents versus in-basin residents and businesses	Tax paid primarily in-basin. Example: property taxes paid by local residents and businesses.	A portion of the tax burden is transferred out-of-basin.	. The tax/fee burden is reasonably shared among in-basin residents/businesses and out-of-basin residents/businesses based on use of the transportation infrastructure Example: road tolling. Example: road tolling, cordon line vehicle entry fee.
Supports attaining Tahoe Basin environmental quality thresholds	The mechanism has little direct or significant impact on achieving VMT reduction, GHG emissions, or TMDL standards.	The mechanism has moderate impact on achieving VMT reduction, GHG emissions, or TMDL standards.	The mechanism has very direct and significant impact on achieving VMT reduction, GHG emissions, or TMDL standards.
Business climate friendliness	The mechanism is not perceived as friendly by the business community. It may be burdensome to comply with and pay, or it may place significant disproportionate costs on business activities, or both.	The mechanism is perceived as somewhat business climate friendly. It may be somewhat inconvenient to comply with and pay, or it places some additional costs on business activities, or both.	The mechanism is perceived as business climate friendly. It is simple to comply with and pay, and places generally acceptable costs on business activities.
Revenue potential	The mechanism generates low gross revenues over the life of the RTP (low revenue potential mechanism).	The mechanism generates medium gross revenues over the life of the RTP (medium revenue potential mechanism).	The mechanism generates high gross revenues over the life of the RTP (high revenue potential mechanism).
Administrative Effectiveness	Administrative and compliance costs account for a significant share) of total revenues, require new collection systems and/or technologies or are difficult to enforce. Example: Sales and use tax on internet sales	Administrative and compliance costs account for a reasonable share (e.g., about 10 to 50 percent) of total revenues. The collection system is streamlined, reducing the administrative costs. Example: Tolls	Administrative and compliance costs are low (e.g., less than 10 percent of total revenues), and collection and monitoring can be piggy-backed under existing collection systems. Example: Sales tax
Political /Feasibility/Public Acceptability	Highly unpopular and low support from public and decision-makers.	Medium support from public and decision-makers.	High support from public and decision-makers.
Fungibility across uses and/or jurisdictions	Revenue has severe use restrictions and/or cannot be used outside of jurisdiction of collection.	Revenue can be flexed to multiple uses and be used outside of jurisdiction of collection with moderate administrative effort.	Revenue can be flexed to multiple uses and be used outside of jurisdiction of collection with little or no administrative effort.
Impacts to regional economy	Estimates of economic impact indicate a negative impact compared to status quo	Estimates of economic impact indicate a neutral impact compared to status quo	Estimates of economic impact indicate a positive impact compared to status quo

Table 15: Revenue Evaluation Criteria Weighting Factors (Draft)

Criterion	Weighting Factor
Constitutional Amendment/Statewide Vote	Fatal flaw
Adequacy	2
Predictability	2
Economic Efficiency	1
Equity	2*
Share of tax paid by out-of-basin versus in-basin residents and businesses	2
Supports attaining Tahoe Basin environmental quality thresholds	3
Business climate friendliness	2
Revenue potential	3
Administrative Effectiveness	1
Political /Feasibility/Public Acceptability	2
Fungibility across uses and/or jurisdictions	3
Impacts to regional economy	2

*Originally proposed weighting was 1; TTD Board amended to 2

There are a number of future technology changes that could affect transportation needs, and revenue generation and collection such as continued fleet economy improvements, increased use of electric vehicles, the expansion of real time ride sharing services, and the implementation of “smart cities” technologies. **Task 12 Review Future Technology Changes that could Affect Transportation Needs and Funding** will conduct a high level review of these trends in technological change and provide an assessment as to how each trend could affect future transportation needs, including the need for expanded communications and digital infrastructure and funding in the Lake Tahoe Basin. If any of the trends are expected to have a significant impact, they will be considered in the evaluation of the funding shortfalls as well as the evaluation criteria used to review possible funding strategies.

4.2 Tiered Screening Process

The proposed tiered screening process to evaluate the potential revenue options based on the proposed evaluation criteria is shown in **Figure 3**. It is a three-tiered process where the analysis of options becomes more rigorous as the process progresses. The process is as follows:

- At the **first tier screening** level, the potential revenue sources will be examined in terms of their need for a constitutional amendment and/or statewide public vote, revenue adequacy and predictability, and economic efficiency. If the potential revenue source requires an amendment of either the California or Nevada constitutions, or a state-wide vote of the people in either state, it will be eliminated from further consideration. This first screening will then yield a score for each of the other criteria for each examined potential revenue source. A rating of high will score 3 points, a medium rating will score 2 points; and a

low rating will score 1 point. The weights for each criterion will be applied and the scores will be summed across all criteria. The higher the total score, the better fit the revenue option will be for TTD.

The revenue sources passing through to the **second tier screening** will be examined in terms of their equity, share of tax paid by out-of-basin versus in-basin residents and businesses, support of environmental thresholds, and business climate friendliness. This second screening will yield qualitative estimates for each criterion for each examined potential revenue source. These scores will be informed through stakeholder input as well as literature research.

- The funding sources passing through to the **third tier screening** will be evaluated in terms of their potential to generate the needed revenue during the life of the TRPA's Regional Plan, administrative efficiency, political feasibility/ public acceptance, fungibility across uses and jurisdictions, and impacts to the regional economy. Tier 3 screening criteria reflect the unique conditions of the Lake Tahoe region. Specifically, these criteria are expected to support:
 - The environmental goals of the Lake Tahoe region, including those designed to reduce private auto travel, both into and around the region, by making more effective use of existing transportation modes and public transit to move people and goods within the Region, and to help achieve TRPA established environmental thresholds;
 - Lake Tahoe's long-term transportation vision by identifying successful revenue mechanisms for significant funding shortfalls; and.
 - Acceptability to the public and policy makers of Lake Tahoe region.

This third screening will provide estimates of annual revenues to be generated by the third tier funding options. These estimates are intended only as a high-level comparison prior to a more comprehensive financial analysis. As such, this analysis cannot be relied upon for final market financial purposes and is intended solely for management decision-making purposes with respect to next steps.

With the proposed tiered evaluation process, many of the revenue options may be screened out using fundamental criteria and gross analysis at the first tier. At the second tier, additional screening criteria will be introduced and the remaining revenue options will be further screened with more rigorous analysis. The revenue options passing through the second tier screening are then subject to the third and final screening process based upon the full gamut of screening criteria and subject to the highest level of analysis. Emerging from this third tier would be final recommendations on funding strategies. The proposed tiered screening process, evaluation criteria and weighting were reviewed by the Project Delivery Team on 3 Dec 2018, and approved by the TTD Board on 14 Dec 2018.

Figure 3: Three-Tiered Screening Process for the Assessment of Potential Revenue Options for the Lake Tahoe Region (Draft)

