



50
YEARS

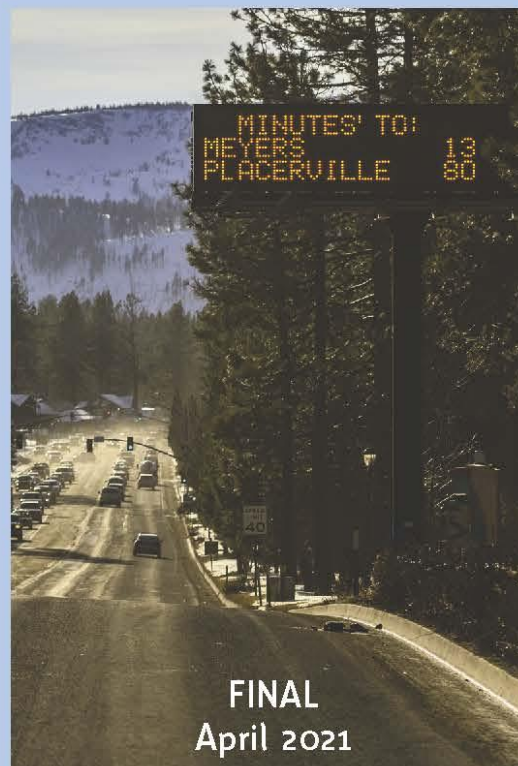
TAHOE
REGIONAL
PLANNING
AGENCY

Executive Summary

REGIONAL TRANSPORTATION PLAN

TAHOE REGIONAL PLANNING AGENCY

Lake Tahoe



FINAL
April 2021

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RTP Executive Summary

Lake Tahoe is one of Earth's iconic treasures. Expansive forests, marshes and meadows, boulder-strewn beaches and coves, and majestic mountain peaks surround the famously clear blue lake high in the Sierra Nevada. This awe-inspiring environment has attracted visitors from across the globe for generations. And today, its proximity to major metropolitan areas in northern California and Nevada makes it a natural outdoor playground for millions of people looking for unparalleled summer and winter recreation opportunities.

Vision

Tahoe's transportation system is interconnected, inter-regional, and sustainable, connecting people and places in ways that reduce reliance on the private automobile.

Visitation is the main driver of the Lake Tahoe Region's \$5 billion annual economy, based largely on seasonal tourism and outdoor recreation. But this puts metropolitan-level travel demands on the region's limited and largely rural transportation system.

During peak times of visitation, Tahoe's roads clog with traffic and parking demands exceed capacity at recreation sites. This seasonal influx of motorists has consequences for the environment, for local communities and their mobility, and for air and water quality. As neighboring cities from Reno and Carson City to Sacramento and San Francisco continue to grow, transportation pressures and challenges at Tahoe will only increase.

There is broad consensus that to meet the growing travel demand the Tahoe Region needs a transportation system transformation. Improvements are needed to help people travel to, from, and around the region more efficiently. Improvements will also strengthen initiatives underway to conserve and restore Tahoe's environment; revitalize communities; improve quality of life for residents and quality of experience for visitors; improve mobility and safety for people walking and biking; improve recreation access and sustainability; and reduce emissions of greenhouse gases and build a resilient system in response to climate change.

Figure 1: Tahoe City Mobility Credit: Novus Select



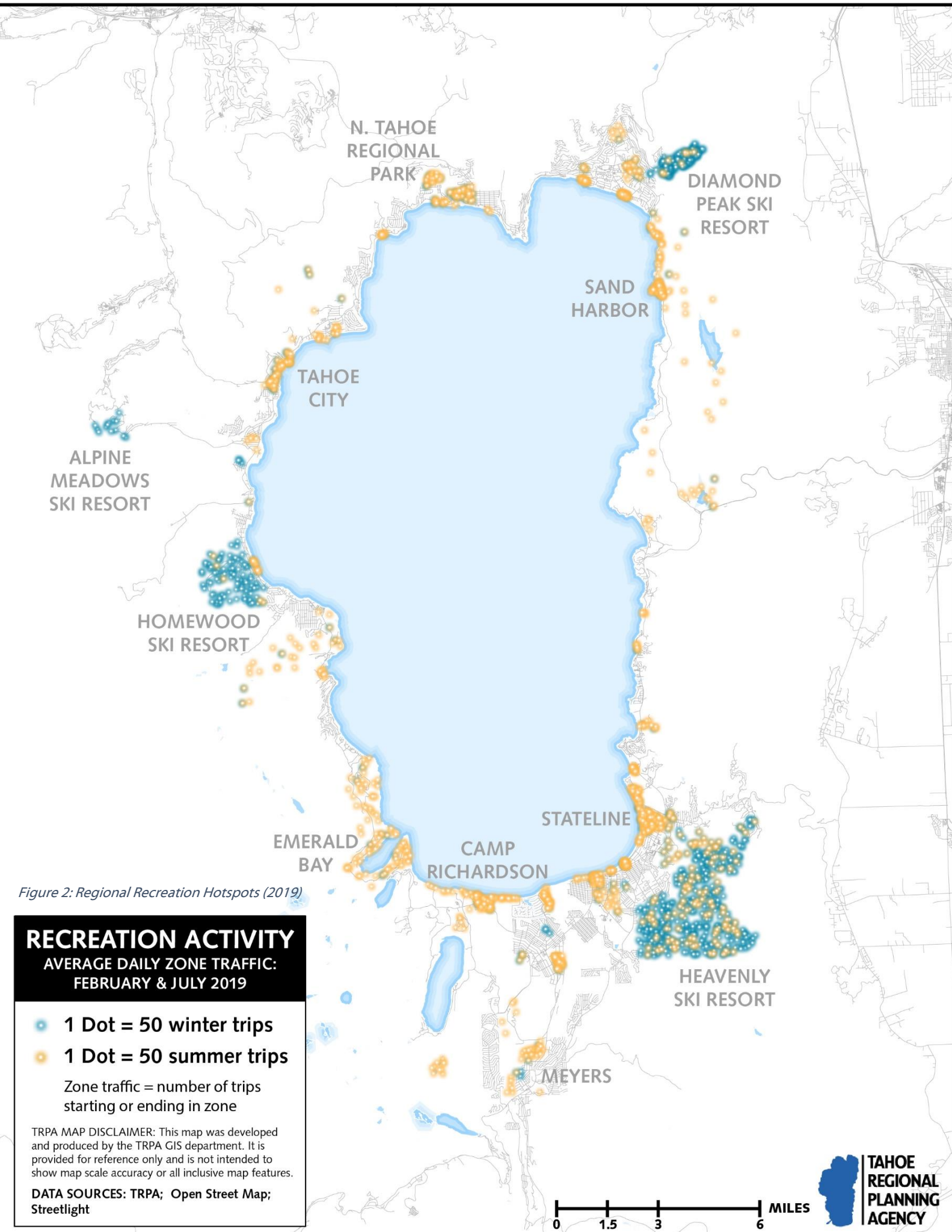


Figure 2: Regional Recreation Hotspots (2019)

RECREATION ACTIVITY
AVERAGE DAILY ZONE TRAFFIC:
FEBRUARY & JULY 2019

 1 Dot = 50 winter trips

 1 Dot = 50 summer trips

Zone traffic = number of trips
starting or ending in zone

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DATA SOURCES: TRPA; Open Street Map;
Streetlight



REGIONAL TRANSPORTATION PLAN

As the Tahoe Region's federally-designated metropolitan planning organization and the bi-state compact agency that California and Nevada created 50 years ago to manage growth, development, and land use in the Tahoe watershed, the Tahoe Regional Planning Agency (TRPA) plays a leading role in identifying solutions for the region's transportation challenges. Every four years, TRPA evaluates and updates the plan for Tahoe's transportation system. The 2020 Regional Transportation Plan identifies a broad range of projects, programs, and strategies needed to comprehensively improve Tahoe's transportation system over the next 25 years.

The region cannot simply build its way out of its transportation challenges, expanding and creating more roads to meet ever-growing driving demands. Instead, the plan focuses on transit, trails, technology, and community enhancements to provide more travel options for residents and visitors.

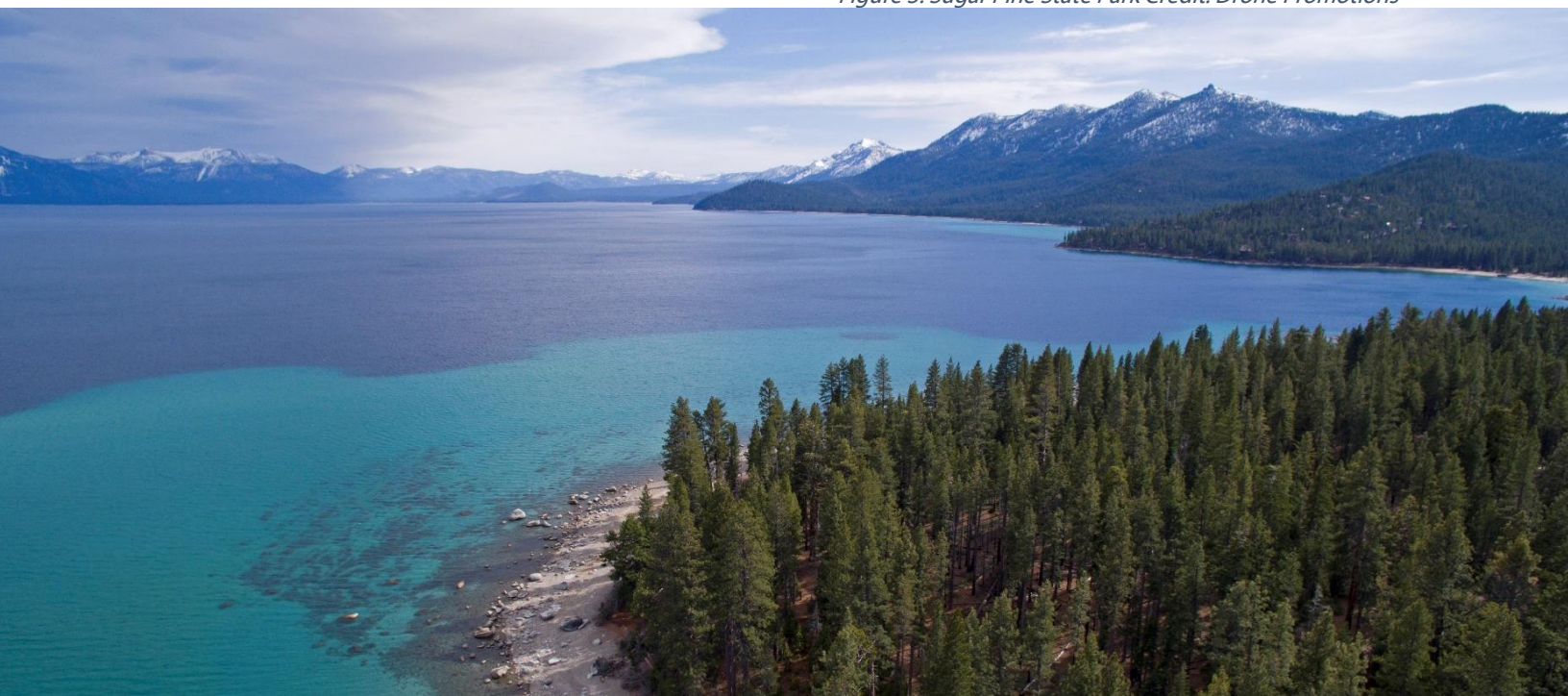
Expanded transit services and a robust network of trails, sidewalks, and bike lanes will ensure that every Tahoe resident has safe, reliable, and convenient alternatives to travel throughout the region to homes, workplaces, schools, commercial areas, and

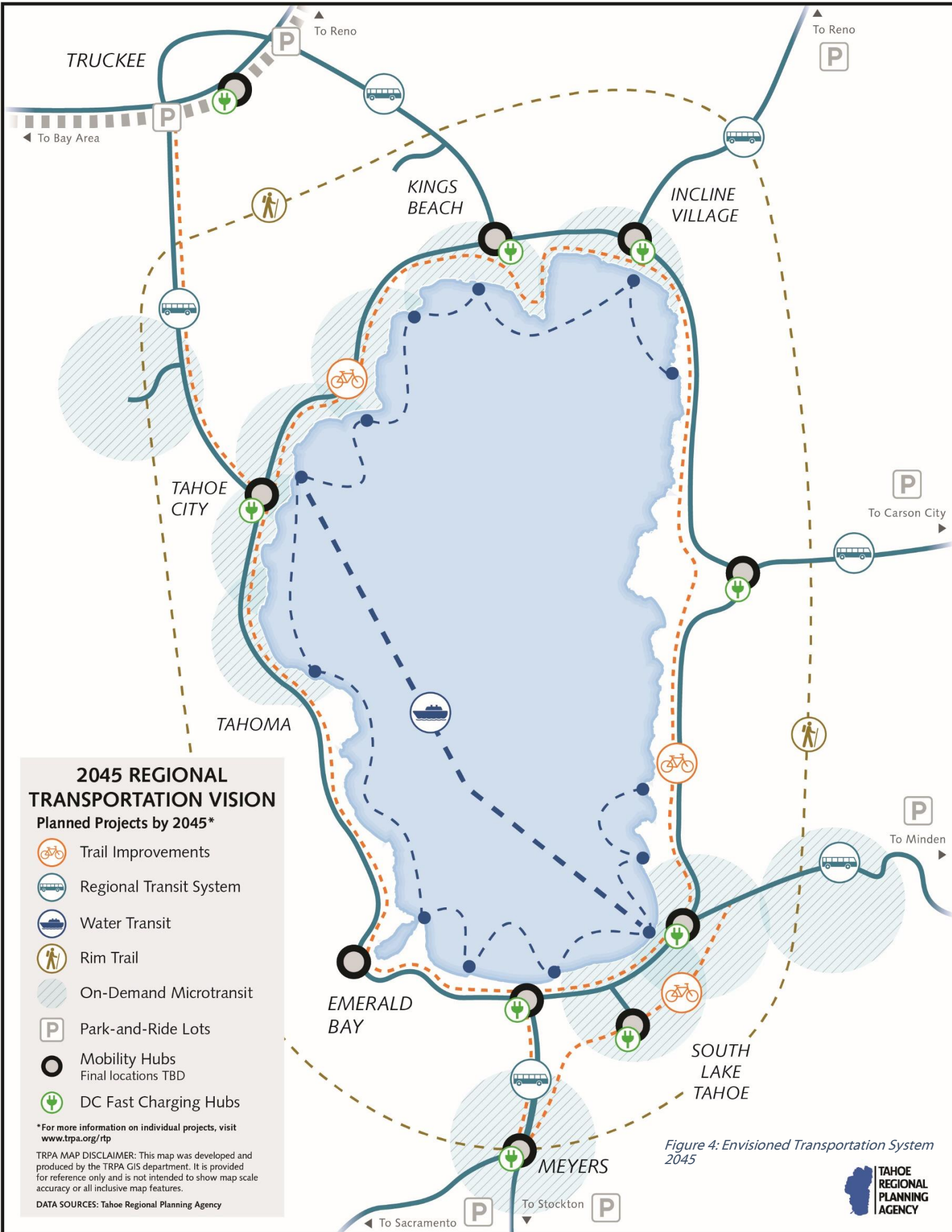
recreation sites without having to drive — and make it easier for visitors to arrive without a car or leave their cars parked while exploring everything Tahoe has to offer.

New technologies will improve how roads, traffic signals, and parking areas are operated and put real-time information about road conditions and the most convenient travel options at the fingertips of everyone planning a trip in the region. The Communities focus area will ensure that all corridors in Tahoe have more travel options than just the automobile — and that roadways are maintained to ensure safe and efficient movement of people and goods. These improvements also support evacuation needs during extreme events, such as wildfires and other future climate impacts. For example, coordinated traffic signals and adaptive corridor lanes can be modified to support the safe flow of people out of harm's way.

With strong and growing partnerships and collaborations in place, the RTP is the foundation for the Tahoe Region to make transformative transportation improvements a reality and to deliver a world-class transportation system.









Figure 3: Sugar Pine State Park Credit: Drone Promotions





2045 REGIONAL TRANSPORTATION VISION

Planned Projects by 2045*

-  Trail Improvements
-  Regional Transit System
-  Water Transit
-  Rim Trail
-  On-Demand Microtransit
-  Park-and-Ride Lots
-  Mobility Hubs
Final locations TBD
-  DC Fast Charging Hubs

*For more information on individual projects, visit www.trpa.org/rtp

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DATA SOURCES: Tahoe Regional Planning Agency

Figure 4: Envisioned Transportation System 2045

BI-STATE CONSULTATION ON TRANSPORTATION

Over the last five years, the region and partners from the states of California and Nevada, have been collaborating to create a world-class transportation system for Tahoe that serves visitors' and residents' travel needs in ways that preserves the region's environment.

The Nevada Department of Conservation and Natural Resources and California Natural Resources Agency convened the Bi-State Consultation on Transportation for the Tahoe Region in 2017 and reconvened in 2019. The consultation represents a diverse group of stakeholders that work together to develop an action plan of key transportation projects, to strengthen public-private

partnerships, and to identify needed funding and funding sources to implement transformative projects at Tahoe.

Seventeen agencies committed to collaboratively advocate for funds to implement these catalytic projects, including working together to develop new revenue sources that are critical to delivery of the Regional Transportation Plan. This is advancing the Sustainable Funding Initiative described in the funding section of this plan.

The Bi-State Consultation has delivered clear priorities within the plan's project list, revenue forecast, and approach to project implementation through collaboration.

The Bi-State Consultation on Transportation is advancing several high priority transportation projects and is committed to developing funding for them:

- **Transit enhancements** to double transit ridership in town centers and at popular recreation areas
- **Build paths**, institute **parking management**, and provide **transit service** within the region's two highest use recreation corridors:
 - **State Route 89** in California along Tahoe's West Shore with some of the region's most popular beaches, trail heads, and iconic vista points, including Emerald Bay.
 - **State Route 28** in Nevada along Tahoe's East Shore serving popular state parks, beaches, and lakeshore trails.
- **Advance the South Shore Community Revitalization Project** on Tahoe's South Shore to re-route US 50 from the center of town to its edge and reimagine the community core as a gathering place for visitors and residents with connections to mountain and lakeside recreation, nearby neighborhoods, convenient parking, and free and frequent transit, as guided by the **Main Street Management Corridor Plan**.
- Support implementation of **adaptive corridor management**, including a transit priority lane within the Resort Triangle between Truckee and the North Shore in Placer County, California on **State Routes 267 and 89**.

Transportation Action Plan from Bi-State Consultation

The states of California and Nevada have convened a Bi-State Consultation on Transportation to bring public and private partners together to accelerate transportation investment at Lake Tahoe. The following represents a collaborative commitment to funding more than \$1 billion in regionally significant transportation investments, which equates to one-third of the overall Regional Transportation Plan.

U.S. 50 South Stateline Community Revitalization

Reclaiming a main street along U.S. Highway 50 will make the heart of the South Shore more walkable, bikeable, and economically viable while protecting Lake Tahoe's spectacular environment. The project will deliver new affordable housing and reduce greenhouse gas emissions.

Project Cost: \$100 million (transportation), \$56 million (housing)



State Route 89 Emerald Bay Corridor

The newly launched corridor management plan calls for Emerald Bay shuttles every 15 minutes, parking management, new trails, and other infrastructure improvements.

Project Cost: \$20 million



State Route 28 Stateline-to-Stateline Bikeway

Infrastructure investments are needed to complete the trail along the entire East Shore linking Incline Village to Spooner Summit. Parking and safety enhancements, pedestrian crossings, and a link to Spooner Front Country facilities are needed.

Project Cost: \$68 million



Placer Resort Triangle Priority Transit Lanes

Placer County is leading this innovative project to dedicate transit lanes on State Routes 89 and 267 during peak travel times to reduce congestion and improve traffic flow and safety.

Project Cost: \$30 million





Delivering the Regional Transportation Plan

Transformational investments in Transit, Trails, Technology, and maintaining the transportation system at Lake Tahoe.

TRANSIT

Transit investments are needed to improve service to the local community and the millions of visitors to Lake Tahoe. By growing public-private partnerships on transit, Lake Tahoe will benefit from reduced congestion and greenhouse gas emissions.

Key projects: Free local transit and new transit routes to recreation hot spots.

Cost: \$407 million

TRAILS

The Tahoe Region has a growing system of shared-use paths, sidewalks, bicycle lanes, crosswalks, and accessible facilities. The network is critical to increasing trips by foot and bike in the region.

Key projects: Resort Triangle Bikeway Network, Pioneer Trail Sidewalks, and the South Tahoe Greenway network.

Cost: \$47 million

TECHNOLOGY

Technology creates opportunities to better connect people with information about travel around the region. New systems are crucial to reduce pressure points on roadways in peak seasons. Clean technology is also critical to address climate impacts.

Key projects: Intelligent Transportation System (ITS) upgrades, regional parking, and traffic management.

Cost: \$160 million

OPERATIONS & MAINTENANCE

Continued investment in operations and maintenance ensures the transportation system functions at a high level and reduces the impact from emissions and stormwater runoff on Lake Tahoe.

Key projects: Closing the funding gap on maintaining local roads, existing trails, and new complete streets projects.

Cost: \$345 million

REGIONAL GOALS

Regional goals and policies establish the organizing framework for transportation planning at Lake Tahoe. They represent stakeholder feedback and public input, as well as input from previous plans, such as the 2016 Active Transportation Plan, the 2016 Tahoe-Truckee Plug-In Electric Vehicle Readiness Plan, and the 2015 Intelligent Transportation Systems Strategic Plan.

The Regional Plan and the RTP share six major goals for the transportation system. See Appendix A for more information on the Regional Plan and RTP goals and policies.

Look for each goal's icon throughout this document to find where it is demonstrated in the plan.



Figure 5: Kings Beach Commercial Core Credit: Placer County



Environment

Goal: Protect and enhance the environment, promote energy conservation, and reduce greenhouse gas (GHG) emissions.

Plan Approach: A transportation system that provides alternatives to driving can help preserve Tahoe's environment by reducing GHG and roadway runoff into the lake. Assessing projects for vehicle miles traveled (VMT) and mitigating those impacts is part of TRPA's and California jurisdictions' development review. This will further reduce GHG emissions from transportation.



Connectivity

Goal: Enhance and sustain the connectivity and accessibility of the Tahoe transportation system, across and between modes, communities, and neighboring regions, for people and goods.

Plan Approach: A seamless, efficient, and accessible transportation system is accomplished through the individual elements of transit, trails, and technology while enhancing their integration through a corridor approach.



Safety

Goal: Increase safety and security for all users of Tahoe's transportation system.

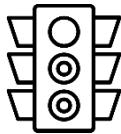
Plan Approach: Residents, commuters, and visitors are more likely to bike, walk, and take transit if they feel safe. Addressing high crash rate locations, eliminating gaps in bike and pedestrian paths, improving pedestrian crossings, and lighting transit stops are all proposed safety improvements.



Economic Vitality and Quality of Life

Goal: Support the economic vitality of the Tahoe Region to enable a diverse workforce, sustainable environment, and quality experience for both residents and visitors.

Plan Approach: The Tahoe Region's economy is built on the world-renowned recreational access residents and visitors enjoy. The transportation system supports this by connecting workers to jobs, visitors to recreation hot spots, and residents to attractive town centers and affordable housing.



Operations and Congestion Management

Goal: Provide an efficient transportation network through coordinated operations, system management, technology, monitoring, and targeted investments.

Plan Approach: A well-executed transportation management system incorporates monitoring data, real-time information, and dynamic operations that tracks, shares, and responds to travel needs, including congestion, snowstorms, emergencies, such as wildfires, and special events.



System Preservation

Goal: Provide for the preservation of the existing transportation system through maintenance activities that support climate resiliency, water quality, and safety.

Plan Approach: Maintaining the existing transportation system to operate at its highest level supports safe and efficient movement of people and goods in the region. Keeping roadway pavement in safe condition, plowing paths for winter use, and planning for climate resiliency makes initial investments last and reduces large and costly rehabilitation projects.

PLANNING CONTEXT

The Lake Tahoe Region is a uniquely complex transportation planning landscape. It includes federal lands, the states of California and Nevada and their respective transportation departments, El Dorado, Placer, Douglas, and Washoe counties, the City of South Lake Tahoe, Carson City and County, the Tahoe Transportation District, and multiple public utility districts, improvement districts, and land management agencies. Tahoe is also the current and ancestral home of the Washoe Tribe of Nevada and California, making the tribe an important partner in planning initiatives.

TRPA's planning and regulatory authority, unique among federally designated metropolitan planning organizations, has created a long history of integrated land use and transportation planning in the Tahoe Region.

This integration can be seen when mixed-use development is concentrated in town centers, affordable and achievable workforce housing for residents is incentivized, and recreation sites are connected to biking, walking, and transit options. As a result, the region achieves economic vitality, community revitalization, environmental restoration, and conservation goals. These actions also serve to meet California and Nevada GHG emission reduction targets.

While TRPA has these planning and regulatory authorities, the region is most effective at achieving shared goals when work is completed by the region's many private, community, and local, state, and federal government partnerships, which support the quality of life for residents, employees, and visitors.

TRPA Thresholds

The TRPA Bi-State Compact mandates the establishment of threshold standards and plans to attain and maintain them. The

threshold standards address nine key resource areas: Water quality, air quality, scenic resources, soil conservation, fisheries, vegetation, wildlife, noise, and recreation. The Regional Transportation Plan, in its implementation, is a threshold attainment plan. Improvements in the plan will help achieve and sustain five of nine adopted thresholds:

Water Quality: Return the lake to 1960s water clarity and algal levels by reducing nutrient and sediment in surface runoff and groundwater.

Air Quality: Achieve the strictest of federal, state, or regional standards for carbon monoxide, ozone, and particulates; increase visibility; reduce U.S. 50 traffic; and reduce vehicle miles traveled.

Scenic Resources: Maintain or improve 1982 roadway and shoreline scenic travel route ratings, maintain or improve views of individual scenic resources, and maintain or improve the quality of views from public outdoor recreation areas.

Noise: Minimize noise disturbance from single events and minimize background noise disturbances in accordance with land use patterns.

Recreation: Preserve and enhance high quality recreational experiences. Preserve undeveloped shorezone and other natural areas and maintain a fair share of recreational capacity for the public.

TRPA is presently updating its air quality thresholds, including the vehicle miles traveled (VMT) threshold. This will align state mobile source GHG emission policy and targets and more closely link the plan's vision and the Regional Plan goals. This will further integrate the land use and transportation system to improve mobility, reduce reliance on the private automobile, and address roadway congestion. The VMT threshold standard will measure the progress of implementing the plan by measuring VMT

per capita (residents and visitors). Implementing the VMT threshold at the project level will occur through updated project impact assessment and fee processes,

each of which will use VMT as the basis for evaluation. The updated processes will also advance the projects and programs of the plan.

PUBLIC PARTICIPATION

People helped develop the plan and ensure it meets the travel needs of residents, commuters, and visitors. In total, 8,517 people helped inform the development of the Regional Transportation Plan:

- 2,173 through direct engagement at meetings.
- 6,344 through surveys.
- 624 Spanish speaking residents engaged through both outreach methods.
- Over 2,000 people reached through online platforms following the Covid-19 pandemic in March 2020.
- Consultation with the Washoe Tribe of Nevada and California

Private Partners

Private partners play an essential role in achieving the plan's transportation vision by providing easements, constructing improvements, offering transportation services, maintaining paths, and contributing funding. For example, mitigation fees charged to new development projects advance the implementation of the Regional Transportation Plan by providing local governments and implementors monies to leverage larger grant opportunities. The private sector is also a key partner to implementing travel demand management strategies that encourage more people to bike, walk, carpool, or use transit services to reduce overall dependence on the personal automobile and reduce GHG emissions.



Figure 6: State Route 89 Corridor Plan Public Workshop, 2020 (pre-COVID-19 pandemic)

THE PLAN

Lake Tahoe's transportation system must serve everyone. To do so successfully requires understanding the needs of three distinct groups of users: Residents, commuters, and visitors. Knowing who is using the system, when and how they are traveling, the purpose of their trip, and where they are traveling to and from. This understanding helps TRPA and its partners build a better transportation system, and one that can scale with the seasons.

Visit Tahoe

Visit Tahoe consists of travel to and from Tahoe, including connecting airports and freight. They account for 11 percent of all trips made within the region.

Discover Tahoe

Discover Tahoe includes residents and visitors traveling within the Tahoe Basin to recreation sites. Discover Tahoe trips account for 38 percent of all trips within the region.

Everyday Tahoe

Everyday Tahoe includes resident and worker commute, trips to schools, or other routine short trips around town that are often less than two miles in length. Everyday Tahoe trips account for 51 percent of all trips made within the region.

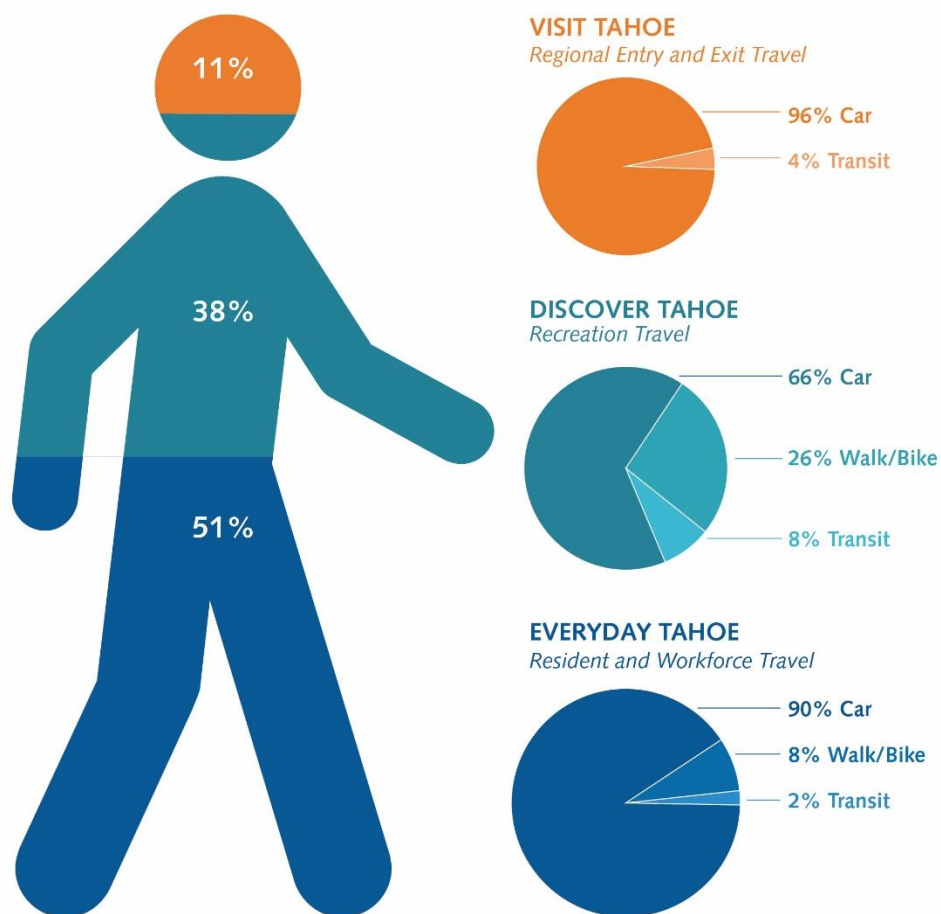


Figure 7: Regional Travel Patterns by User and Mode

STRATEGIES

The Regional Transportation Plan incorporates two main strategies to achieve the region's envisioned transportation system: travel demand management and transportation system management.

Travel Demand Management

Travel Demand Management (TDM) strategies shift the travel choices people make away from the personal automobile to walking, biking, transit, and carpooling, during busier travel times when there is less capacity on roadways and less parking at recreation sites.

Everyday Tahoe

Because Everyday Tahoe trips are shorter and follow a similar pattern, they are the easiest trips to make using transit, biking, or walking. TDM strategies for Everyday Tahoe travelers include employer trip reduction programs, enhanced transit access, and education and encouragement programs, such as the Lake Tahoe Bike Challenge and Bike to School week.

Discover Tahoe

Access to popular recreation sites and points of interest is often limited by parking availability and inadequate transit services which combine to create roadway congestion, and safety concerns and environmental degradation caused by people seeking parking further from their destination. TDM strategies for Discover Tahoe travelers include providing real-time travel information, parking management systems, marketing travel options, and incentivizing the use of transit.

Visit Tahoe

Peaks in visitor travel typically occur over holiday weekends, for special events, and on high snowfall days. TDM strategies targeting the millions of visitors to the region each year include encouraging travel to and from Tahoe during non-peak times, leaving the car at home and arriving by public or private transit with recreation gear storage, and educating visitors about how they can conveniently access all the region has to offer on foot, bike, or transit once here.

Figure 8: Waiting for the Bus in Kings Beach Credit: Novus Select



Transportation System Management

Transportation System Management (TSM) projects for transit, trails, technology, and communities provide a reliable, safe, and convenient transportation system. When coupled with TDM strategies, transportation in Tahoe can truly be transformed.

Transit

Transit services will be added incrementally over the next 25 years to provide 15-minute service between town centers and popular recreation destinations, 30- to 60-minute service between neighborhoods and town centers, and inter-regional service for commuters and visitors from neighboring regions.

Prioritizing and funding foundational service first meets everyone's daily needs, including transit-dependent riders and employees, makes it easier for recreational travelers to use transit to travel around the Tahoe Region, and assures visitors to Tahoe they can do so without their personal automobiles.

- **Visit Tahoe – Regional Entry and Exit Travel:** Public and private transit providers will build on the existing water transit and regional services to provide more options for commuters and visitors to travel to and from Tahoe without the use of an automobile.
- **Discover Tahoe – Recreation Travel:** Seasonal service to popular recreation sites, such as beaches, trailheads, and ski resorts, will help residents and visitors recreate without driving.
- **Everyday Tahoe – Residential and Workforce Travel:** Frequent, local, and community routes will be prioritized in the short-term and provide necessary services for everyone, and especially for transit-dependent populations.



Figure 9: On-Demand Transit Services Credit: Tahoe Transportation District



Trails

The Tahoe Region has a growing system of shared-use paths, sidewalks, bicycle lanes, crosswalks, and Americans with Disabilities Act facilities. The network is critical to increasing trips by foot and bike in the region by providing enjoyable, and crucial, walking and biking routes. Between 2018 and 2019, bike paths and sidewalks at Tahoe that have monitoring stations recorded a 15 percent increase in summertime use.

- **Visit Tahoe – Regional Entry and Exit Travel:** Improving connectivity and safety between communities combined with promoting biking and walking as a primary mode of transportation to the region’s visitors will allow visitors to enjoy Tahoe car-free.
- **Discover Tahoe – Recreation Travel:** Completing the Tahoe Trail around the lake and improving connectivity within and between communities will improve access to beaches, trails, and other recreation areas, and support new modes of active transport such as e-scooters and e-bikes.
- **Everyday Tahoe – Residential and Workforce Travel:** Closing gaps in the sidewalk and trail system will increase safety, ensure the system is accessible to people with a disability, and provide critical community, work, and recreation connections for people who do not have access to a car.

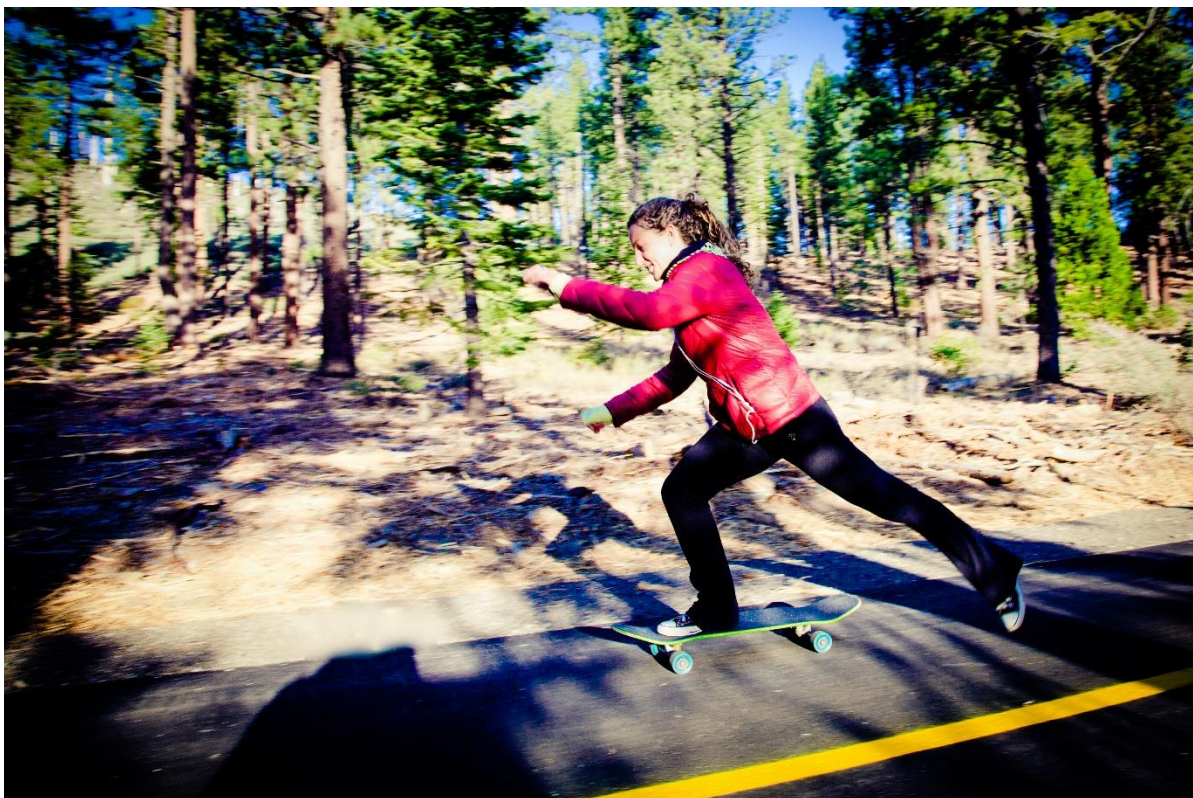


Figure 11: Skateboarder on a Shared Use Trail




Figure 12: Envisioned Trails System

TRAILS

2045 TRANSPORTATION PLAN

 Existing Bike Paths

Planned Projects by 2045*

 Proposed Bike Paths

 Proposed Mobility Hubs
Final locations TBD

*For more information on individual projects, visit www.trpa.org/rtp

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DATA SOURCES: TRPA

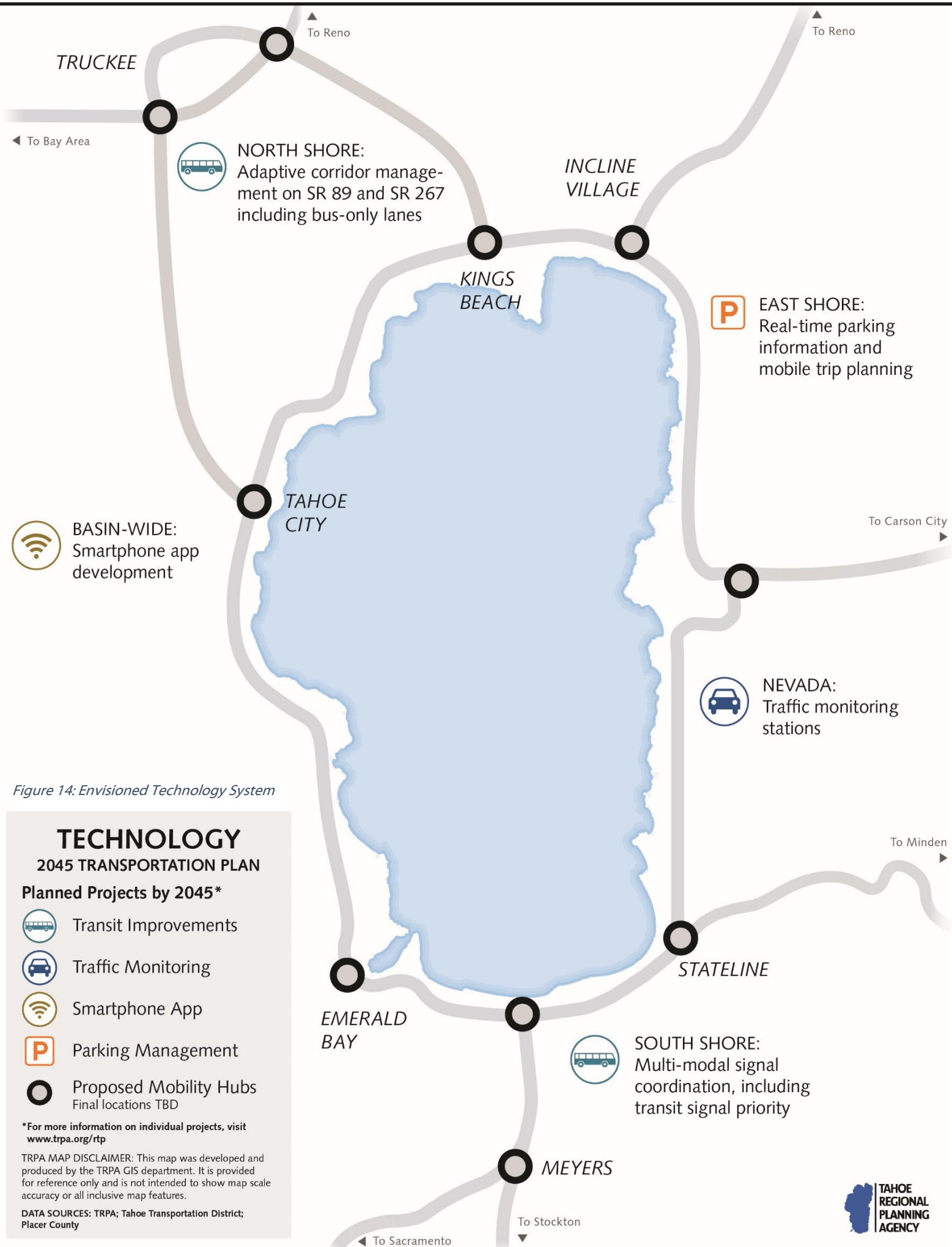
Technology

Technology creates opportunities to better connect people with information about the many ways to travel around the region, informs better planning by TRPA and its many partners, provides insights through new data and analysis, and ensures facilities for zero-emission vehicles are available throughout the region.

- **Visit Tahoe – Regional Entry and Exit Travel:** Provide real-time information and video feeds of roadway conditions and travel restrictions, allowing drivers to plan ahead, and install more electric and zero-emission vehicle charging stations around the lake to reduce transportation's impact to the environment by reducing GHG emissions.
- **Discover Tahoe – Recreation Travel:** Providing a region-wide transportation trip planning tool and informational kiosks at popular activity centers, combined with managed parking at heavily-visited recreation destinations, will enable recreation travelers to make more informed, cost-effective travel choices.
- **Everyday Tahoe – Residential and Workforce Travel:** Providing real-time travel information, online interactive maps, and building awareness of app-based transportation services, such as on-demand microtransit and bike and scooter sharing, will provide better and more informed travel choices for every day travel needs.



Figure 13: Proterra Electric Bus in King Beach



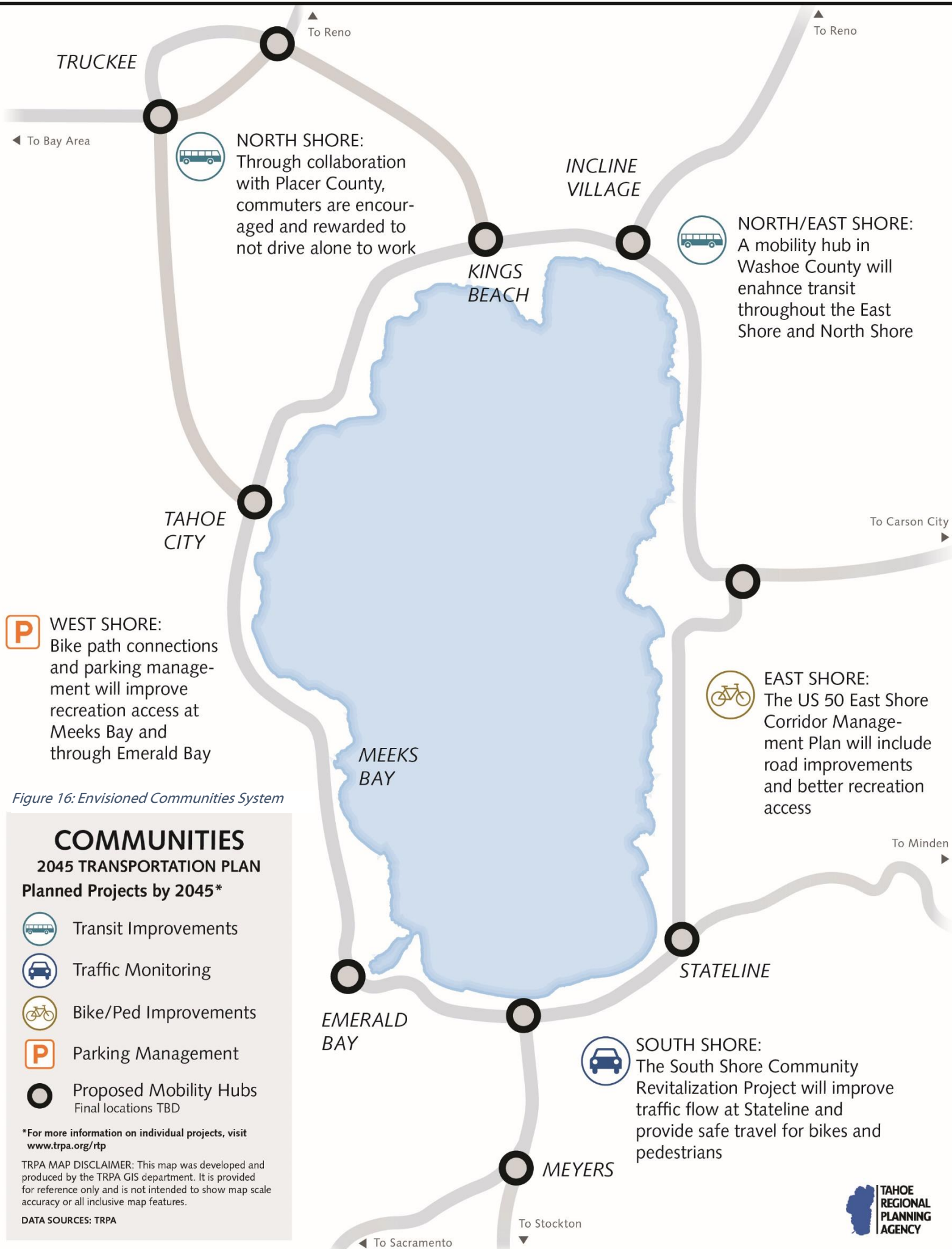
Communities

The communities focus area of the plan is where elements of transit, trails, and technology come together with land use, often through a corridor planning framework. The communities approach enhances the region's economic vitality by more efficiently connecting workers to jobs, visitors to recreation hot spots, residents to attractive town centers with affordable housing and to recreation, and freight to businesses.

- **Visit Tahoe – Regional Entry and Exit Travel:** Corridor planning provides seamless, efficient, and accessible transportation services that always include active transportation options, improves the sustainability of outdoor recreation at Tahoe, and facilitates transit-oriented development in town centers that connects people to housing, lodging, commercial areas, and popular recreation destinations in the region.
- **Discover Tahoe – Recreation Travel:** Seventeen mobility hubs and transit centers are planned to be built within the Tahoe Region and at key entry points from neighboring regions. Each hub will be appropriately sized for its location, include park and ride spaces that are reservable online, zero-emission vehicle facilities, safe bike parking, and provide simple and convenient access to frequent transit services that carry recreation equipment and luggage.
- **Everyday Tahoe – Residential and Workforce Travel:** A complete streets approach in town centers ensures that all roadways include sidewalks, bike lanes, shared-use paths, landscaping, benches, and pedestrian lighting to encourage travel by foot, bike, and transit. Funding is prioritized to maintain roads and paths, which are critical for moving people and goods.



Figure 15: Local family enjoying new bike path connections in Douglas County, Nevada



SUPPORTING ADVANCEMENTS IN PLANNING

Implementing the Regional Transportation Plan will be further advanced by the following concurrent planning efforts.

Understanding Tahoe Travel

Establishing methods to better understand the Everyday Tahoe, Discover Tahoe, and Visit Tahoe travel groups, including their travel needs, and the proportion of VMT that each produce.

Efficient and Accelerated Implementation

The 17 public agencies that committed to the corridor planning framework continue to advance catalyzing change to Tahoe's transportation system through collaborative implementation and new transportation funding.

Transportation Demand Management

Strengthening existing partnerships within the transportation management associations on the North and South Shores to implement effective transportation demand management strategies through public-private partnerships.

Connecting to Land Use and Housing

Connecting transportation to land use and housing is an important approach of the Regional Plan and the Regional Transportation Plan. TRPA is committed to continuing this approach by incentivizing affordable and achievable housing in and near town centers and transit routes, and connecting centers with bicycling, walking, and transit options.

The RTP analysis found that the region has areas sufficient to house residents from today to 2045.

The Tahoe Living Communities program will continue to advance housing policy that connects to the transportation system.

Climate Resiliency

Transportation is a major source of greenhouse gas (GHG) emissions in the Tahoe Region. This plan identifies a variety of strategies to reduce those emissions including zero-emission vehicles, connections to land-use, and expansion of transit and trails.

The RTP estimates that the region will achieve GHG emission reductions mandated in California.

Climate change and its impacts pose significant and growing risks to the safety, reliability, effectiveness, and sustainability of the Tahoe Basin and its transportation network. Many impacts are already occurring, and Lake Tahoe communities need to adapt to become more resilient to these changes.

Preparing for climate change and extreme weather events is an important element of protecting the integrity of Tahoe's transportation system, bolstering its role in emergency response, and the achievement of the plan's goals. Additionally, TRPA recognizes the broader need to address climate change in a holistic manner that connects to environmental justice.



Figure 17: Electric Vehicle Charging

IMPLEMENTATION

The Tahoe Region is poised to bring its transportation system into the 21st century. And the groundwork for these changes has been developing for at least a decade. The 2012 Regional Plan Update and 2012 Regional Transportation Plan strengthened development policies and implementation incentives to spur compact walkable, bikeable small community centers. These plans favor reduced traffic and more affordable and workforce housing near transit to reduce VMT and use of automobiles. The 2015 revisions to the development rights system of the Regional Plan are the foundation for creating sustainable communities, where housing can be located in proximity to community services and alternative modes of travel.

In 2017 and 2019, the California Resources Agency and Nevada Department of Conservation & Natural Resources convened a transportation policy forum to clarify transportation funding and project priorities for Tahoe. The Regional Transportation Plan lays out the stepping stones for achieving the Regional Plan's vision building on the Bi-State Consultations recommendations.

This plan is consistent with and even more progressive than related statewide policies.

Tahoe's transportation system will be achieved over the next 25 years through three steps:

- By 2025, **strengthening the existing transportation system** to ensure foundational transit services and trails infrastructure are in place for all travelers in Tahoe, from the Everyday traveler who relies on the system to get to work, to the Discover Tahoe traveler and their interest in visiting the most popular recreation sites, and for the Visit Tahoe traveler who will be confident that enjoying Tahoe is better without a car.

- By 2035, the foundation will be built stronger and **expanded to provide more options for all travelers in Tahoe**: More transit routes, more frequent transit service, more travel options with completed and continuous path and sidewalk routes to popular destinations, and more programs to support commuters, recreators, and help visitors make more informed transportation choices.
- By 2045, the expanded foundation of the prior two steps will be **connected to neighboring communities** and the broader mega-region to meet the travel needs of recreationists who visit Tahoe for the day, and visitors to the region from larger cities and connecting airports.

Corridor planning is key to the plan's implementation approach. It coordinates projects, services, and roadway management throughout the region's six main travel corridors to accelerate Regional Transportation Plan implementation. It also identifies committed champions to spearhead needed improvements and ensure that plans for long-term operations and maintenance are in place.

The Tahoe Region will continue progress on each of these three steps concurrently, though implementation must be phased both for the system to function as intended and because there is not currently adequate funding available to pay for everything to be implemented today.

To prepare for accelerated implementation as envisioned in the Bi-State Consultation, these steps are built to flex and adapt as new funding sources and partnerships become available. For example, the plan envisions inter-regional transit service between nearby cities and Tahoe to be fully in place by 2045.

Inter-regional partnerships between TRPA and the Regional Transportation Commission of Washoe County, Nevada will pilot transit service between Reno and Sparks to Incline Village and Sand Harbor State Park, anticipated to start in summer 2021, implementing the first step towards the plan's larger transit vision.

A third convening of the Bi-State Transportation Consultation is now under way and has made new sources of funding to implement the Regional Transportation Plan its highest priority. A target has been set to reach a widely supported bi-state and stakeholder consensus on approach to new funding sources for transportation system implementation by the end of 2021.

2021 to 2025

Transit: Transit service in the region is free and frequent on core routes; private partners increase the number of people using transit and microtransit services; mobile source GHG emissions are reduced because fewer people are traveling in their personal automobile, and when they do drive it is more often with a zero-emission vehicle; and the most vulnerable users in our communities have more transit options.

Trails: Seven miles of new shared-use paths are constructed; people who walk and bike are served by projects in high-use areas with separated paths, on-street bicycle lanes, safe and accessible transit stops, frequent and safe road crossings, and amenities such as water fountains, landscaping, benches, and shelters.

Technology: Access to the East Shore Tahoe Trail and recreation sites is improved through real-time parking information and other parking management strategies; walking and bicycling are prioritized at traffic signals in California, reducing the barrier and safety concerns that intersections present for vulnerable users.

Communities & Corridors: Commuters are encouraged and rewarded to not drive alone to and from work; every corridor in Tahoe has a plan for providing more and safer transportation choices; and students can confidently and safely walk, bike, or ride transit to and from school.



Figure 18: Bikers riding near Meyers, California

2026 to 2035

Transit: More people ride transit by choice because it is free, frequent, and easy to use; commuters from the Carson Valley have affordable and reliable transit options to jobs at Tahoe; and popular recreation sites can be reached with shuttles and water taxis.

Trails: Forty-seven miles of new paths, bike lanes, bike routes, and sidewalks are built; the Tahoe Trail is extended from Baldwin Beach to Meeks Bay on the South Shore and from Sand Harbor State Park to Spooner Lake State Park on the East Shore.

Technology: Transit is prioritized at traffic signals in California and heavy traffic is carried on California highways on the North Shore without road widening by adapting existing roadway to transit only lanes during busy traffic periods.

Communities & Corridors: Main Street improvements on the South Shore are completed, providing better walking, biking, and transit service in one of the most heavily visited areas at Tahoe; more people park their cars once and travel around the region by transit, walking, or biking; and recreation access is improved with new paths and parking management strategies along state route 89 including Meeks Bay.

2036 to 2045

Transit: Five million people ride transit in the region every year; cross-lake passenger ferry service provides an alternative to driving between the North and South Shores; and mega-regional transit brings visitors to Tahoe without the need for a personal vehicle.

Trails: One-hundred and ten miles of new paths, bike lanes, bike routes, and sidewalks are added to the transportation system, completing the Tahoe Trail, and giving the region a fully interconnected multi-modal transportation system.

Technology: Road construction information is shared with travelers to increase their trip planning abilities; more people do not drive to work and are rewarded for doing so; and emergency communication services are integrated for better information sharing and response to emergencies with the California Intelligent Mobile Observation System.

Communities & Corridors: Roads are paved, potholes are filled, and regular maintenance is completed on all local roads at Tahoe; U.S. 50 is re-routed around popular gathering and recreation areas on the South Shore, and a new main street is built with improved transit service and infrastructure for pedestrians and bicyclists.

FUNDING

Transportation at Tahoe is funded by a complex mix of federal, state, local, and private sources. Resort destinations like Lake Tahoe, which see high visitation and seasonal travel, require funding sources for transportation services that reach above and beyond the basic needs of residents and commuters. While there have been some new funding opportunities unlocked for Tahoe, there remains a funding gap to realize the full envisioned transportation system.

An estimated \$2.4 billion in revenue is anticipated to be available over the 25-year planning period. TRPA forecasts needed investments totaling nearly \$3.4 billion to implement the plan's full build out over 25-years, leaving a \$1 billion gap.

The forecast reflects historically available funding levels, a reasonable expectation of success with discretionary grants, and a new regional revenue estimate that is being actively pursued by TRPA and regional partners.

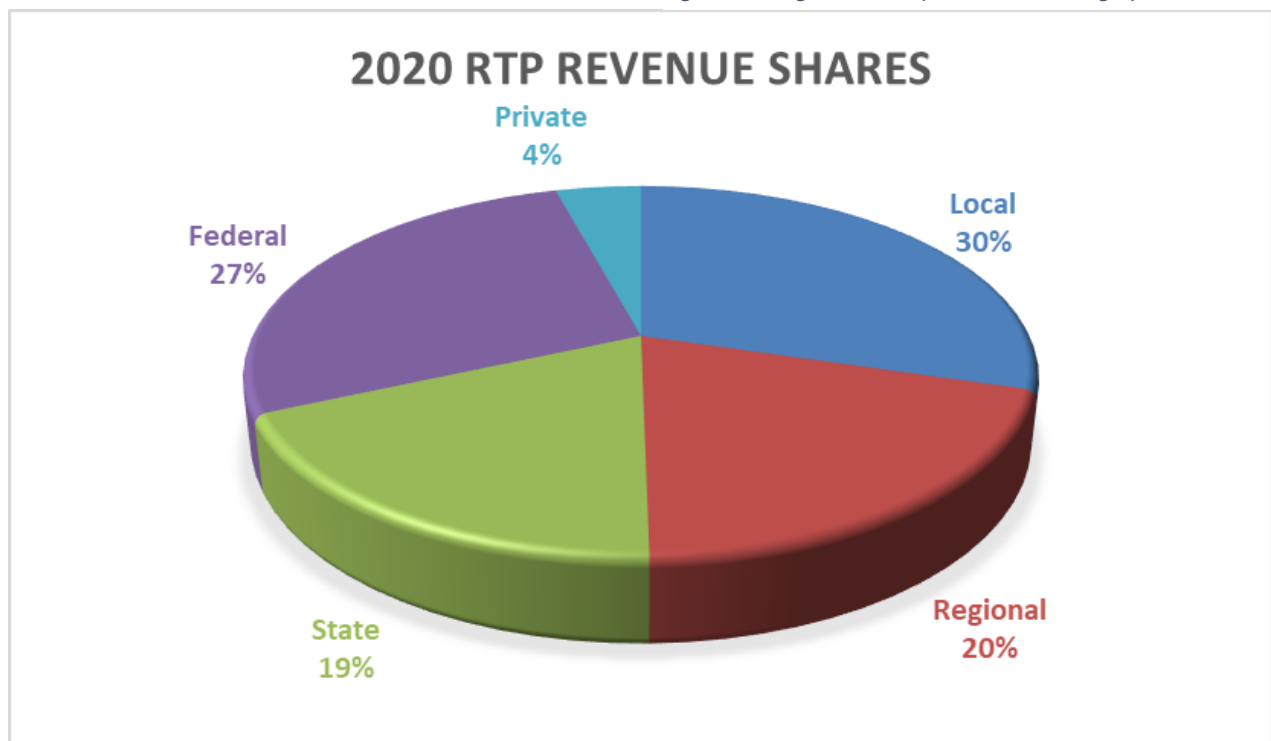
The transportation system transformation that Lake Tahoe's environment deserves and communities around the lake demand will require dedication, collaboration, and

difficult political decisions – the Sustainable Funding Initiative is driving toward establishing new regional funding sources to help pay for high-priority projects, services, and programs.

As part of the Sustainable Funding Initiative, various sources of regional funding will be evaluated alongside new and emerging local, state, and federal funding opportunities. As shown in the chart below regional revenue represents 20 percent of the total funding for the RTP.

The continuing work of the Bi-State Transportation Consultation for the Tahoe Region re-convened in 2020 to reinforce alignment around transportation priorities and identify additional transportation revenue that could be supported by the two states and the many regional partners will accelerate the plan's implementation going forward. Additionally, TRPA and its many partners at the local, state, and federal levels, are collaborating to identify other regional revenue sources needed to fully fund the needed transportation system improvements.

Figure 19: Regional Transportation Funding by Source



PERFORMANCE MEASURES

TRPA measures the transportation system at Tahoe to know what is happening on roads, paths, and bus routes. Such information is critical for the agency to adapt planning initiatives, direct funding to projects and programs, respond to emerging issues, and refine projects and programs for better outcomes. It is also how TRPA continuously manages for success.

To do so, TRPA collects data from a variety of sources, including surveys, U.S. Census data, "Big Data," and the TRPA Travel Demand Model. The agency uses these data, tools, and analysis to monitor specific transportation performance measures every one-to-four years.

Performance measures include daily per capita vehicle miles traveled (VMT), non-auto mode share, resident access to walking and biking infrastructure and transit services, serious injury crash rates, and roadway pavement conditions.

Daily Per Capita VMT

Daily per capita VMT is a measure of how far individuals travel each day. Daily per capita VMT is a measure of efficiency of a transportation system in moving individuals between the places they need to be.

DAILY PER CAPITA VMT

TARGET: 6.8% reduction from 2018 by 2045



PERFORMANCE: No status, proposed standard (2021)

2018 Per Capita Daily VMT: 12.48

2045 Per Capita Daily VMT: 11.63

Figure: Daily per capita VMT

Non-Auto Mode Share

Measures the proportion of all trips that are made by foot, bike, scooter, and transit.

NON-AUTO MODE SHARE

TARGET: Improve average non-auto mode share calculated from the two most recent TRPA travel survey results.

PERFORMANCE: ON TARGET



Figure 20: Non-Auto Mode Share

Rate of Serious Injuries per 100 Million Vehicle Miles Traveled (VMT)

This metric is a national standard for tracking the safety of a region's roadways.

RATE OF SERIOUS INJURIES PER 100 MILLION VEHICLE MILES TRAVELED (VMT)

TARGET: Reduce serious injury crashes by 3.03% in California and 0.5% in Nevada (based on a five-year rolling average).

PERFORMANCE:
CA: NOT ON TARGET
NV: ON TARGET



	California:	Nevada:
Previous:	3.02	2.06
Current:	3.13	1.92
% change:	+3.6%	-7%

Figure 21: Rate of Serious Injuries

Priority Communities' Transportation Access: ¼ Mile to Transit Service, ½ mile to Class I Bike Path, and ¼ mile to Pedestrian Facilities (Class 1 Bike Path and Sidewalks)

The metric shows how well the transportation system supports the region's residents, their economic vitality, and quality of life, especially the most vulnerable in Tahoe communities, including people living below the federal poverty line, that are disabled, or live in a household with zero vehicles.

TRANSPORTATION ACCESS IN PRIORITY COMMUNITIES:



NEW TARGET: Increase access to each mode from Priority Communities to 100% by 2045.

PERFORMANCE: ON TARGET



Figure 22: Transportation Access in Priority Communities

Note: Priority Communities are those that have three or more environmental justice criteria: low-income, minority, disabled, zero vehicle household, senior household. This is a new Performance Measure and so cannot be compared to prior measures.

Pavement Condition

This measure provides key information about maintenance efforts and needs in the region and helps direct operations and maintenance plans and funding.

This measure is tracked using data from state departments of transportation and local jurisdictions.

PAVEMENT CONDITION

TARGET: Maintain levels for "Good" and "Poor" pavement conditions.

	California:	Nevada:
Good:	≥29.9%	≥55.8%
Poor:	<7.2%	<6.5%

PERFORMANCE:

California: **NOT ON TARGET**

Nevada: **ON TARGET**

	California:	Nevada:
Good:	30.7%	79.4%
Poor:	33.6%	4.7%



Figure 23: Pavement Condition Index

MOVING FORWARD

The Tahoe Region is making progress on longstanding transportation challenges. Accelerating that progress is needed to improve the health of the region's environment, the vitality of its communities, the quality of life of residents, the quality of the recreation experience for both residents and visitors, and to meet greenhouse gas reduction goals set by the states of California and Nevada.

Many private partners, advocacy groups, and public agencies at all levels of government are working together to advance the region toward Tahoe's transportation goals, thanks in part to the Bi-State Consultation on Transportation and the Corridor Planning Framework.

TRPA is also broadening its partnerships inter-regionally to improve the effectiveness of transportation planning, projects, and programs at Tahoe and to strengthen collaboration and innovation on transportation issues with partners such as the Washoe Tribe, the Sacramento Area Council of Governments, the Regional Transportation Commission of Washoe County, the Carson Area Metropolitan Planning Organization, the University of California, Davis Institute of Transportation Studies, and the University of Nevada, Reno.

Continued innovation, partnerships, and solutions needed to develop a world-class transportation system for the Tahoe Region are truly within reach.

Figure 24: Father and Daughter on Sawmill Bike Path

